SOUTH MARKETING ISSUE
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WEEKLY NEWSPAPER FOR THE FARM CHEMICAL MANUFACTURER, FORMULATOR AND DEALER

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National Plant Food Institute Votes New Program in Education and Promotion Field

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C. T. Prindeville, John A. Miller in Top NPFI Posts

Elected chairman of the board of e National Plant Food Institute at e group's annual meeting last week White Sulphur Springs, W. Va., as C. T. Prindeville, Swift & Co., icago. Named president was John Miller, Price Chemical Co., Louisle.

Russell Coleman and Paul T. Truitt ere elected executive vice presints and W. R. Allstetter was med vice president. Louis H. Wilon was reelected secretary and Wilm S. Ritnour, treasurer.

Executive committee members are: r. Prindeville; Mr. Miller; E. A. oghegan, Southern Cotton Oil Co., ew Orleans; Marlin G. Geiger, W. Grace & Co., New York; Ralph B. uglass, Smith-Douglass Co., Norlk, Va.; H. A. Parker, Sylacauga la.) Fertilizer Co.; Dean Gidney, S. Potash Co., division, U.S. Borax Chemical Corp., New York; John ristian, Inorganic Chemicals divin, Monsanto Chemical Co., St. is; and L. D. George, Richmond .) Guano Co.

Twelve new members were elected the board of directors for terms iring 1960 and two members to board to fill unexpired terms.

For terms expiring in 1960 the folwing were elected to the board: Charles W. Baldwin, U.S. Steel rp., Pittsburgh; L. G. Black, Ark- Plant Food Co., Corning, Ark.; F. Bridgers, Farmers Cotton Oil ., Wilson, N.C.; Peter Colefax, nerican Potash & Chemical Corp., s Angeles; Ralph B. Douglass,

(Continued on page 8)

WHITE SULPHUR SPRINGS, W. VA.—The National Plant Food Institute, at its annual business meeting here voted to increase financial support of the Institute's fertilizer market expansion program and promotional activities. The business meeting was held Monday, June 10, the first day of the convention which closed June 12. More than a thousand persons were registered at the meeting held at the Greenbrier Hotel.

The Institute's action in launching its expansion program was taken despite a negative vote voiced by six potash producing companies. G. Fred Coope, president of the Potash Company of America, Carlsbad, N.M., and a director of NPFI, declared in a statement read at the businesss meeting, that the added costs involved in a program such as proposed by the National Plant Food Institute would place an "additional burden" on the potash producers comprising the American Potash Institute. This group of six producers is currently contributing to the API's "program of research, education and promotion which benefits the entire fertilizer industry," Mr. Coope declared. "We cannot accept the inequitable allocation of costs of this (NPFI) proposal," he said, and added, "if it is adopted, my company intends to submit its resignation from the Plant Food Institute."

Mr. Coope emphasized that his statement represented the sentiment not only of his own firm, but also that of American Potash & Chemical Corp.; Duval Sulphur & Potash Co.; National Potash Co.; Southwest Potash Corp.; and U.S. Potash Co., division of U.S. Borax & Chemical Corp.

International Minerals & Chemical Corp., Chicago, a non-member of the American Potash Institute, was not included in the group opposing the expansion program. Louis Ware, IMC president, spoke briefly on behalf of the proposed expansion program, stating that his firm regarded the proposed program as one needed by the NPFI and the industry.

POTASH PRODUCERS DISAPPROVE

Six potash producers voiced disapproval as NPFI group discussed financing of program. See complete statement by G. Fred Coope on page 21.

In an address augmented by charts and slides projected on a screen, preceding the business meeting, Dr. Russell Coleman, executive vice president of the National Plant Food Institute, explained the over all aspects of the proposed expansion program. Describing it as a "unified program of action" under the direction of the Institute, he said that three main projects would be included. These are:

1. To broaden and strengthen fertilizer research through increased grants to universities and colleges.

2. To initiate a farm demonstration program in cooperation with state and federal agencies.

3. To develop more specific informational programs based on the results from research and demonstrational projects.

"The plan will be principally concerned with developing the present market potential," he said. "Farm demonstrations conducted in local areas will give the Institute information on which it can project a broad localized informational program. It is the purpose of this program to enlist the cooperation of local newspapers, radio and television stations, agricultural publications, bankers, dealers, professional agricultural workers and others to tell the fertilizer story based on agronomic and economic information."

The first step in implementing the expansion program, he said, will be the employment of four regional managers and the establishment of regional Institute offices. These were outlined by Dr. Coleman as follows:

For the midwest, possibly in Chicago; for the far West, possibly in San Francisco; for the Southeast,

(Continued on page 20)

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NPFI Panel Speakers Predict Greater Market for Fertilizer

WHITE SULPHUR SPRINGS, W. VA.—A statement that "the American farmer can buy every pound of plant food in the next five years that the industry is able to sell him" keynoted a June 10 panel discussion on "How Big is the Fertilizer Market?" at the National Plant Food Institute convention here.

That declaration was made by O. E. Anderson, secretary of the Ohio Bankers Assn., Columbus, and moderator of the panel.

Other panel members were E. T. York, Jr., northeast manager, American Potash Institute; Wilbur Renk, Wisconsin farmer, and Gordon B. Nance, professor of agricultural economics, University of Missouri.

Mr. Anderson cited "the financial statement of American agriculture" to back up his contention.

He said that figures quoted in Vol. 19 of the Agricultural Finance Review, issued last February by the U.S. Department of Agriculture, "proved beyond any shadow of doubt that the farmers of this nation are financially capable of tackling any project in which they are interested. As a whole, they could double their use of plant food. Yes, credit-wise, they could triple their use of fertilizer."

Mr. Anderson pointed out that "the total assets of American farmers at the beginning of this year stood at $170,100,000,000," and "total liabilities, on the other hand, on that same date amounted only to $18,800,000,000.

"Those assets of $170 billion, which, incidentally, is the highest on record in the history of agriculture in this country, included real estate, livestock, machinery, crops stored, household furnishings and equipment, deposits in currency, United States Savings Bonds and investments in cooperatives. Their liabilities, on the other hand, included only $9 billion in real estate debt less than $5 bil-

(Continued on page 6)

Missouri Council Outlines Plan for Soil Improvement Reporting Awards

COLUMBIA, MO.—A review of esent and future projects, the elecon of officers and directors, and a ur of the University of Missouri's ils and field crops experimental ots were the concern of members the Soil Fertility and Plant Nutrion Council of Missouri at their ird annual meeting here recently.

Council members were brought up date on a new project of their ganization by Clyde H. Duncan, niversity associate agricultural edior. He outlined the recently anounced Missouri newspaper contest ne council and the Missouri Press ssn. are co-sponsoring.

"The council has made $500 in prize money available for the contest for the coming year," Mr. Duncan noted. "It will be divided on an equal basis between daily and weekly newspapers who, according to a panel of judges, do the best job of reporting soil improvement practices during the coming year."

In commenting on the contest, Jim Gillie, council president and Phillips Petroleum Co. representative from Kansas City, said the awards are a reward for good reporting of improved soil fertility practices, wise use of fertilizers, and other soil saving and improvement practices which benefit the man doing it and serves as a standard for others to follow.

Announcement of the contest was first made at the annual luncheon

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William J. Haude Named President Of Grace Chemical

NEW YORK — J. Peter Grace, president of W. R. Grace & Co., has announced that William J. Haude has been appointed president of the Grace Chemical Company Division.

Since May, 1955, Mr. Haude has been vice president and general manager of Grace Chemical Co. located in Memphis, Tenn. The division is one of the major producers of ammonia and urea in the U.S.

Mr. Haude had many years of experience in the field of agricultural chemicals before joining the Grace organization in 1953. Formerly, he was president of the Pittsburgh Agricultural Chemical Co., a division of Pittsburgh Coke & Chemical Co., New York. Prior to that he was a vice president of John Powell & Co., New York.

Mr. Haude was born in Chicago on Jan. 1, 1914. He received his bachelor of science degree in entomology from the University of Illinois in 1934. He took graduate work in entomology at Tulane University.

While at the University of Illinois, Mr. Haude was elected to Phi Beta Kappa.

Mr. Haude is a director of the Chemagro Corp., New York, and the Central States Fertilizer Co., Chicago.

PEST LAW SIGNED

SACRAMENTO—Gov. Goodwin J. Knight has signed into law a bill passed by the California legislature calling for the periodic inspection of nurseries and the establishment of standards for cleanliness of nursery stock produced or sold in the State. The bill provides standards for keeping nursery stock free from pests.

Editors Honored With NPFI Soil Builders Awards

WHITE SULPHUR SPRINGS, W.VA.—Carroll P. Streeter, editor of Farm Journal, Philadelphia, and Bill Kennedy, editor of the Georgia Farmer, Atlanta, were presented awards for "superior journalistic contributions toward the building of the soils of our nation" by the National Plant Food Institute at its convention here.

Mr. Streeter and Mr. Kennedy were winners in the Institute's nationwide "Soil Builders Award for Editors" contest in a field of 32 magazine entries. The contest was established in 1952, with the approval of the American Agricultural Editors' Assn.

C. T. Prindeville, Swift & Co., Chicago, president of the Institute, presented the awards.

Scrolls signed by the national judges were awarded Mr. Streeter representing the winner among magazines of more than 300,000 circulation and to Mr. Kennedy, representing magazines of less than 300,000 circulation. The farm magazines entered in the contest represented a total readership exceeding 33,000,000.

Features judged included stories, editorials, illustrations and combinations of the three categories. The winning staff writer or staff member designated by the editors of the winning magazines will receive a plaque at the winter meeting of the American Agricultural Editors' Assn. in Chicago.

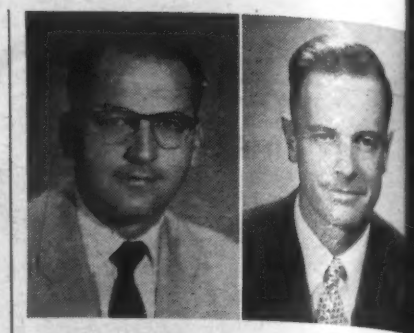
Mr. Streeter became editor of the Farm Journal in 1955, after serving as managing editor for 11 years and associate editor for five years. For four years, he was also editor of Town Journal. Earlier, Mr. Streeter spent 12 years as one of the editors of the Webb Publishing Co. in St. Paul.

A native of South Dakota, he was graduated by Iowa State College, in both animal husbandry and agricultural economics. In 1947, he was the first recipient of the Reuben Bingham award, given by the American Association of Agricultural College Editors for "meritorious service to agriculture." At Iowa State, department of technical journalism, he was cited for "distinguished service to technical journalism."

Mr. Kennedy was reared on a farm in Elmore County, Ala. He was graduated in 1942 by Alabama Polytechnic Institute, at Auburn, where he majored in agricultural education and animal husbandry. He was an army officer in World War II.

In 1946 Mr. Kennedy joined the extension service in Alabama as a 4-H club agent in Coffee County, Ala. In 1948, he went to Auburn as assistant extension editor, and in 1950, he was made radio editor and set up the first extension radio news service in Alabama.

In 1952, he was editor of the lower South edition, Farm and Ranch, and in 1954, was editor of the southeastern edition. In September, 1955, he became editor of the Georgia Farmer to prepare for launching the magazine in January, 1956.



John L. Bills — Joseph W. Brown

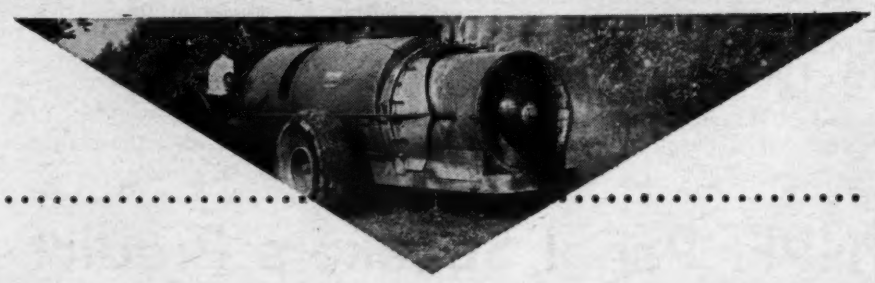
MARKET MEN — American Potash & Chemical Corp. has formed a market research section in its market development department, according to an announcement by Daniel Dinsmoor vice president for planning and development. Dr. John L. Bills formerly of Brea Chemicals, Inc., has joined AP&CC as head of the newly formed section, while Joseph W. Brown, previously with Kelco Co., has been named as market research analyst.

Pesticide Registrations Set Record in California

SAN FRANCISCO—A record number of pesticide products were registered in California during the fiscal year ending June 30, 1956, according to the California Bureau of Chemistry, and the number of deficient samples tested remained under 10%. There was also a record number of firms registered during the year.

The total number of registered products for the year was 11,904, as compared with 11,587 the previous 12-month period, and the number of firms reached 993, as compared with 972 in 1954-55, and 858 in 1950-51.

FOLIAR APPLICATION...



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for you!

When you sell Grace Agricultural Grade Crystal Urea
A *Fast-Growing, Profitable* Market Opens For You

The use of Urea for foliar application on both vegetables and citrus is a fast-growing trend today. That's because this type of application gives the farmer a combination of top quality *and* maximum yields.

Grace Agricultural Grade Crystal Urea has several advantages. Its *low biuret content* (less than 0.2%) makes it safe; it is *especially formulated* for foliar application, and contains 46% nitrogen; it won't clog or damage spray equipment; and it is *completely* water soluble.

Sell Grace Agricultural Grade Crystal Urea ... and take advantage of these new profit opportunities. Here's how Grace helps you:

1. NATIONAL ADVERTISING *pre-sells* **for you!** Grace advertises its Agricultural Grade Crystal Urea to both vegetable and fruit growers nationally, with consistent, full-page, color advertisements. This *pre-selling* makes your job easier ... more profitable.

2. SELLING AIDS ARE YOURS—FREE! Effective, tested selling aids like this informative booklet are yours free, for distribution to your customers. Grace gives you what it takes to do the job *right* ... to establish your business as *headquarters* for foliar sprays.

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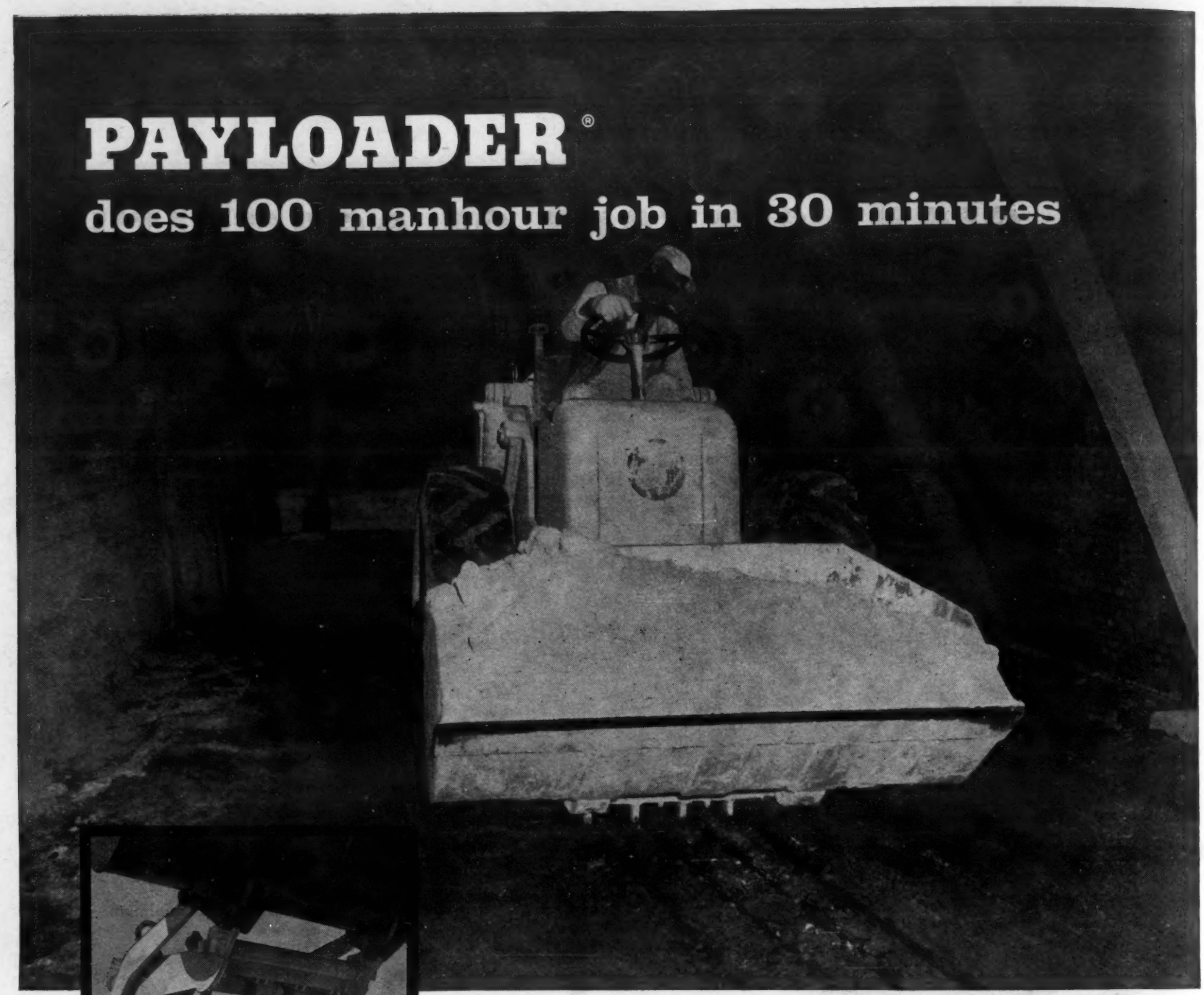

SCARIFIER ATTACHMENT
consists of 4 husky teeth hinged on a bracket behind the bucket. Teeth dig only when bucket is lowered and machine travels in reverse — do not interfere with normal bucket operation . . . are quickly removable.

New scarifier attachment quickly rips-up packed fertilizer

Removing the solidly-packed fertilizer that accumulates on concrete runways and floors usually is a laborious pick-and-shovel job. But now, the new Model HAH "PAYLOADER", with the scarifier attachment, can do the job in a fraction of the time and at very little cost. For example, at this fertilizer plant the Model HAH cleaned up an area in 30 minutes that formerly required 100 hours of hard, manual labor . . . much to the amazement and gratification of the plant management.

This is another example of how you get more and better performance from a "PAYLOADER". Standard operating features of the new, 1 cu. yd. Model HAH "PAYLOADER" include: 45° bucket roll-back at ground level; hydraulic load-shock-absorber; power-transfer differential; powerful breakout digging action; power-steering and hydraulic brakes. Ask your "PAYLOADER" Distributor to demonstrate what a Model HAH or other sizes will do for you. See him, or write us.

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INSECT AND PLANT DISEASE NOTES

...pores Watched ... Massachusetts

AMHERST, MASS.—(June 14)—...e heavy rains late last week dis...arged most of the apple scab ...ores in the old leaves on the ...ound. A few ripe spores are still ...t but this is considered not to be ... concern to growers who have been ...raying regularly. The build up of ...otectant fungicide is expected to ...ke care of any possible infection. ...e main concern is to keep any leaf ...ab, especially in the tops of the ...ees, from spreading to new growth ...d to enlarging apples during wet ...riods. Including a protectant fun...cide at half strength in the insect ...rays is suggested.

Apple powdery mildew has been ...und in another orchard in Mas...chusetts. It is on the new terminal ...owth of Baldwin. Pruning out of ...fected terminals where possible ...d spraying with sulfur, karathane, ... mildex is suggested.

The codling moth has not reached ... critical stage as yet.

The green apple aphid is building ... in some orchards. The smooth, ...ddish swellings caused by the grape ...mato gall maker are beginning to ...ppear on shoots and leaves of grape ...nes. Sweet corn growers have been ...rged to begin corn borer control.—... J. Gilgut and O. C. Roberts.

...orn Borer Moth ...rogresses in Illinois

URBANA, ILL.—The corn borer ...oth emergence is complete in south...rn Illinois, and 50 to 75% of the ...oths have emerged in south-central ...linois. No borer problems on field ...rn are anticipated in these areas.

In central Illinois pupation is ...bout complete, and 25 to 35% of ...he moths have emerged. Peak ...gg-laying will occur in one to two ...weeks.

In northern Illinois pupation varies ...om 75 to 100%, and emergence of ...oths from 10 to 25%. In two to ...ree weeks peak egg-laying will be ...aking place.

It is possible that corn borer egg...ying will be concentrated in only ...e most advanced fields. If so, treat...ent will benefit not only the indivi...ual farmer, but possibly the entire ...ommunity. This may be the oppor...unity to further drastically reduce ...rn borer numbers.

Armyworm moths are still quite ...undant in central and northern ...llinois. Heavy flight was observed in ...orthern Illinois this past week. The ...portance of this moth flight is not ...nown, but in northern Illinois, for ...e next two weeks, grass and grain ...elds with luxuriant foliage are ...oints of interest.

Small grasshoppers have been ...bserved throughout the state, but ...ot yet in concentrations that ...would require control.

A few cornfields have been treated ...r cutworms.

A few areas of thin spots of ...heat killed by chinch bug adults ...ave been reported. The section most ...kely to have infestations is north...astern Illinois center in and around ...Kendall, Grundy and LaSalle coun...ies.—H. P. Petty.

...pple Scab Hits ...ndiana Orchards

VINCENNES, IND.—In general, ...une drop has not reduced the size ...f the apple crop in Indiana. How...ver, reports of a heavy June drop ...re prevalent from the LaPorte area. ...pple scab is prevalent throughout ...he state. Recent reports indicate ...hat several orchards in northern In...iana are heavily infected with scab. ...he percent of the total crop with ...cab cannot be readily estimated as it varies from orchard to orchard depending upon how thorough and how frequent the grower applied protective sprays during the early season. Some growers are almost free of scab in their orchards.

Populations of both European red and two spotted spider mite are increasing. To date no infestations have been observed where mites were heavy enough to injure foliage but an increase in the average number of eggs and nymphs per leaf where a miticide program has not been applied indicates that populations will likely increase rapidly during the next two weeks. Two spotted mite populations have started to build-up in the lower centers of trees near the trunk and will soon spread to other parts of the trees. Populations of mites in the few peach orchards where DDT-Dieldrin spray schedules have been relied on for insect control are generally high enough to warrant protective measures.

Generally first brood codling moth injury continues to be light. Peak activity for first brood moths is past but protection from late first brood worms is still needed. A few orchards show moderate worm injury at this time.

Lesser pear tree borer injury was higher than average during 1956. Adults of this borer began emerging in the vicinity of Vincennes about June 1.—D. W. Hamilton.

Rains Cut Hoppers In Missouri Areas

COLUMBIA, MO.—The heavy rains have reduced hopper numbers in some localities, but in other areas, there are still enough to be a threat.

As soon as grassland and waste land vegetation begins to dry and toughen, hoppers will move into crops, it is expected.

In spite of the wet weather, a good many chinch bugs, particularly in north Missouri, are reported.

In the northern part of Missouri, many English grain aphids are on the heads of wheat. Some fields have a lot of aphids, but not any that would justify spraying. An average of about 20 to 25 aphids per head over the field justifies spraying. As the grain gets into heavy dough stages, even more will be needed to cause appreciable damage.

Hornflies are building up rapidly.—Stirling Kyd and George W. Thomas.

CROP VALUE UP

STATE COLLEGE, N.M. — The farm value of all crops produced in New Mexico last year was over $97 million, a gain of almost $11 million over 1955. Cotton ranked first in farm worth. Lint was valued at $53.9 million, cottonseed at $8.3 million. Hay was second at $14.4 million and sorghum grain third at slightly over $4 million.

Facts about GUTHION

GUTHION provides extremely effective control of cotton boll weevil, including *hard-to-kill strains*, as well as many other cotton insect pests.

* * *

Tested commercially for one full cotton season in the Mississippi and Louisiana Deltas, GUTHION consistently proved more effective than any other chemical for controlling cotton pests, including resistant boll weevil. All fields treated with GUTHION gave higher yields of cotton than adjacent fields treated with other insecticides or combinations of insecticides.

* * *

GUTHION has a prolonged *residual action*, so it does not have to be applied as frequently as other cotton insecticides. This means *fewer* treatments per season, *lower* application cost, *less* mechanical damage to crop from ground applications, and *lower insect control cost per bale of harvested cotton.*

. . . Another Significant CHEMAGRO Contribution to Better Agriculture

THE introduction of GUTHION by Chemagro Corporation marks an important milestone in the development of agricultural chemicals. Invented by Farbenfabriken Bayer, a parent company of Chemagro, GUTHION exhibits startlingly effective control of cotton boll weevil—including resistant strains—and of all other important cotton insect pests.

While its initial usage will be directed against cotton insects, GUTHION appears to control many important insects attacking apples, pears, peaches and apricots.

GUTHION is one of several new Chemagro products showing unique and outstanding promise in the field of agricultural chemicals. These include a defoliant, a fungicide and a spray for the control of livestock pests—each nearing commercial introduction and each significantly superior to any other similar product on the market today. These products will be marketed in accordance with Chemagro policies designed to *assure* a fair profit to the trade.

For more information on new Chemagro products, write for your copy of our new brochure entitled, "Four Revolutionary Chemicals for Agriculture."

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SOUTHERN OFFICES IN MEMPHIS, DALLAS AND ORLANDO, FLA.

NPFI PANEL: HOW BIG A MARKET?

(Continued from page 1)

lion in non-real estate debt, and less than $5 billion in all other obligations.

"Greatest proof of their ability to buy your product, or the product of any other industry, is the fact that their equity in what they own today also is the highest on record, standing at $151,300,000,000. Can the rural banks of this country make loans for the purchase of fertilizer on the basis of that balance sheet? The answer is a resounding Yes. Can the extension agents, the agricultural colleges, the vocational agriculture instructors, the soil conservationists and everyone else interested in more efficient production of farm goods use this financial statement as the basis for intensifying their educational programs for greater plant food usage? Here again the answer is a definite Yes.

O. E. Anderson

"Can the fertilizer industry, from the supplier of raw material through the manufacturer, the jobber and the retailer, use this agricultural balance sheet as a foundation for the greatest merchandising program this industry has ever known? Again, the answer is, 'How can we doubt it?'

"We have a reluctant customer, but he is a customer with a terrific credit potential. I, for one, believe he can be persuaded to enter the market."

Dr. York said that the fertilizer industry "can play a vital role in showing the farmer the advantages of using fertilizers to attain more efficient levels of crop production."

"The job (of the fertilizer industry) is two-fold—to encourage and promote research aimed at developing know-how in fertilizer usage—information on the correct levels of fertilizer needed for most efficient production" Dr. York said. "Historically such research has paved the way for increased fertilizer usage. Then, there is the real task of getting the information to the farmer so that he can see the benefits and will be willing to adopt these improved fertilizer practices." Dr. York said that "the fertilizer industry and particularly the National Plant Food Institue can play a very vital role in helping to speed up the development and acceptance of improved farm practices leading to an even greater expansion in the fertilizer market than would be possible otherwise."

E. T. York, Jr.

Emphasizing "the opportunities for increasing fertilizer usage" he cited estimates by representatives of the various agricultural colleges of increased amounts of fertilizers needed by the farmers in their respective areas. He pointed out that "these estimates range from an increase of 50% to 300%—or even as much as 1,000% increase in plant food usage in some states."

He said that "two major factors which, in my opinion, will determine, to a large extent, the size of the fertilizer market in the years ahead" are (1) the demand for agricultural products and (2) the know-how and the desire of the farmer to produce those products more efficiently.

Relating the demand for farm products to an increasing population, Dr. York said that "when we take into consideration the fact that during the past few years we have been producing more of certain commodities than we need, it would appear that requirements for agricultural products will be about ⅓ higher in 1975 than current levels of production."

"In much of the country a deficiency of plant food is a principal factor limiting higher yields. We obviously have a great opportunity to increase production through proper fertilizer usage. I might even go one step further and say that increased production will, to a large measure, be dependent upon increased fertilizer usage." He added that "expanded efforts in research and education could do much to speed up this rate of (fertilizer) increase."

Dr. York concluded that "in the light of the expected expansion in the need for farm products in the years ahead, the National Plant Food Institute has a wonderful opportunity to help show our farmers how to meet these needs more efficiently through increased fertilizer usage."

Wilbur Renk, farmer from Sun Prairie, Wis., said that he "found fertilizer one of our great assets" on the 2,500-acre Renk farm.

"As our population increases there will be an increased use of fertilizer," Mr. Renk said. "But it will all be tied up to our farming economy. A hard-up farmer is not a generous buyer of fertilizer. So I believe you are just as interested as I am in the economic welfare of the farmer. Fertilizer helps us produce more and more economically. But let us all realize that we need to find new uses for crops as well as packages to better merchandise farm products. As the market expands farmers will buy many tons of fertilizer next year and in the years to come.

"We try to run an economic operation. We set up goals we'd like to meet, and fertilize to meet them. Our goals are: 200 bu. corn crops, 100 bu. oat crops, 60 bu. wheat crops and a 6 ton hay crop. Now average land has only so many nutrients in the soil. One or two big crops will bankrupt the soil. So if big crops are to be produced something must be added. You can't expect to plant corn on a hardwood floor and get a crop. There must be something under it. Each year all of our land is tested and a fertilizer prescription written to attain our goal. We have a 55-acre field of corn that has yielded 172.8 bu. per acre in 1954; 182.9 in 1955; and 167.8 in 1956. This field held its fertility with large amounts of fertilizer.

Wilbur Renk

"Our cost of production was 53¢ bu. on the above field.

"All of the small grain we raise is used for seed. Normally, it takes 200 lb. of fertilizer for a grain field. This fertilizer costs $6, and the average return is $10.40—a profit of $4.40 per acre.

"Fertilizing for grain makes the straw stiffer, makes the kernel plumper and makes the grain ripen more evenly. So this is a hidden advantage that doesn't show in the grain bin.

"All of our pastures and hay fields are fertilized, both to get a better crop, and to balance the grass for our livestock. The cattle will pick up phosphate, calcium, and other minerals out of the soil, and thus not need so many minerals in their feed."

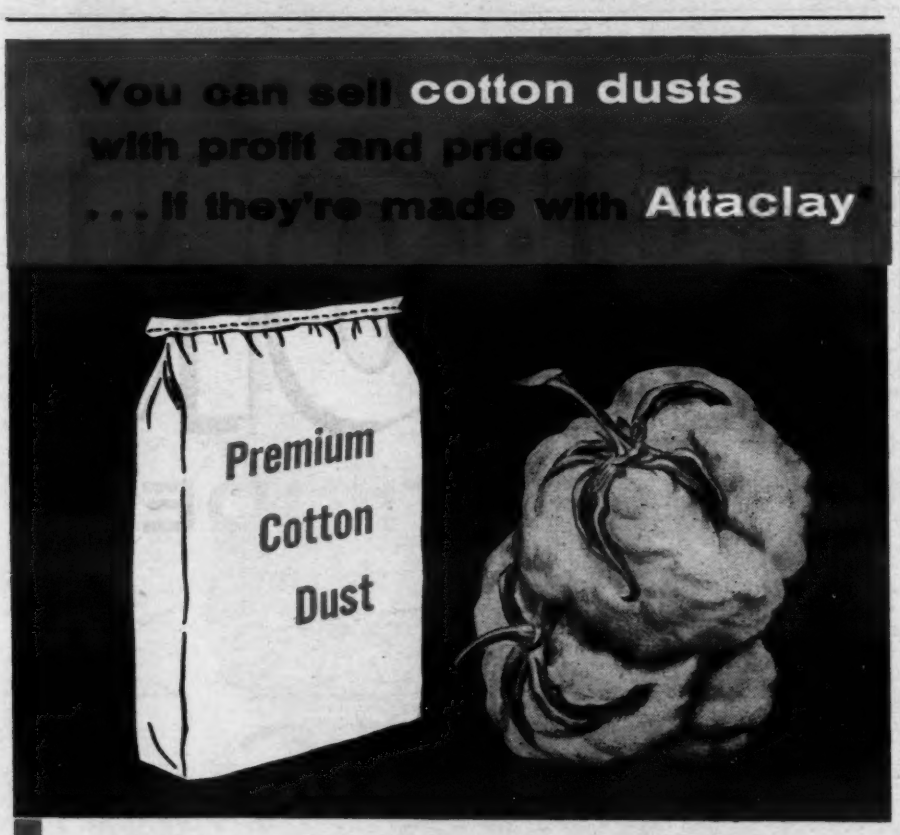
Prof. Nance predicted that "the increase in the use of fertilizer in the next decade will be 2 or 3 times as rapid as it was in the last 10 years. He said that the plant food industry is a "rapidly expanding business—that sales are increasing 8% per year," adding that "this is a remarkable growth for any established industry, and is ordinarily attained only in new ventures—such as air conditioning, television, etc.—in their first few years.

"For example, even though this is considered an age of steel, petroleum and industrial expansion, steel and petroleum production increased only 45% from 1945 to 1955 and industrial production only 28%. But plant food production increased 120%."

He emphasized that "the plant food industry has a growth potential much greater than that for any industry I know—either established or new.

"The profitableness of using fertilizer has been established and demonstrated for as long as I can remember, which is for more than a half century," he added. "This has been called to the attention of every farmer and other persons that can hear, read or see. Fertilizer pays dividends that are almost unbelievable to business investors in general or to farmers. Let us consider the returns on some popular investments. At recent prices, investments in General Motors pays 5.1%, in United States Steel 4.5%, in Standard Oil of New Jersey 3.9%, in General Electric 3.7% and in Du Pont 3.6%. Yet, business men

Gordon B. Nance



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are investing 3 million dollars a day in these securities.

"Compare the returns on these to those received from fertilizer. The data in the form that suited me best were from below-average land in the corn belt that was planted to corn. The corn was valued at $1.20 bu. The first $6 worth of plant food per acre returned 291%; an additional $6 worth returned 227%, and so on, and they had to use $40 worth per acre before the returns on the last addition declined to 5%."

Prof. Nance said "several reasons have been advanced as to why farmers continue to buy so little fertilizer when it pays so well," and added that "none of these are satisfactory to me.

"One is the risk involved—they fear a bad weather year in which they will not get their fertilizer money back. If this is true, it is indeed strange that they raise, buy and feed cattle and sheep, which on the average returns $1.24 for each dollar's worth of feed used, and in one year in five does not even pay all of that dollar back. Also, if they have a bad cattle or sheep year, their loss is irretrievable—the money is gone. But if a drouth prevents fertilizer from paying out one year, most of it is available for the next year's crop.

"A second reason advanced is that lack of money and credit limits fertilizer sales. I'm not impressed with this either. Farmers' liabilities are only 11% of their total assets, and less than their liquid assets—money, bonds, etc. Of course, some farmers lack the money or credit to buy the needed plant foods, but the number is indeed small.

"Some time ago I asked a country banker, whose patrons are mostly farmers, the percentage of his farmer patrons that he would not be willing to lend all the money they needed for full fertilization of all their crops. He said he would refuse such loans to less than 1% of his farmer patrons. I'm morally certain that if the farmers that have the required cash or credit bought all fertilizer they could use profitably, they would buy 5 or 6 times as much plant food as is now produced."

Prof. Nance pointed out that "another possible reason for the small use of fertilizer may be the lack of salesmanship used."

Richard F. Steel in New Borax & Chemical Post

LOS ANGELES—Richard F. Steel has been appointed assistant general manager of the United States Borax & Chemical Corp., it has been announced by James M. Gerstley, president. The position is a newly-created post in the organization. Mr. Steel, who was former secretary and treasurer of the corporation, takes over his new duties immediately. The appointment also makes him an officer of the corporation, whose headquarters are in Los Angeles.

A 1937 graduate of UCLA, Mr. Steel joined the Pacific Coast Borax Co., the predecessor to the present corporation, in 1946 as ansistant manager in charge of taxes and insurance. The following year he was named assistant controller and in 1949 he was promoted to the position of controller. Last year, when the Pacific Coast Borax Co. merged with the United States Potash Co., to form the United States Borax & Chemical Corp., Mr. Steel was elected secretary and treasurer.

SUBSOIL MOISTURE GOOD

URBANA, ILL.—A survey of Illinois soil moisture conditions by soil scientists at the University of Illinois shows a great contrast from last year. Samples taken at 30 locations over the state in mid-April showed soil moisture to be good. With the rainfall since that time, the state as a whole has no areas where subsoil moisture is deficient.

Dow President Stresses Responsibility for Wise Use of Capital, Earnings

WHITE SULPHUR SPRINGS, W.VA.—Progressive and farsighted use of capital and earnings is a prime responsibility of industrial management that is at once economic and social, Dr. Leland I. Doan, president of the Dow Chemical Co., told members of the Manufacturing Chemists' Assn. attending the group's 85th annual meeting here.

Industry, through the millions spent on research, has been responsible for most of the physical progress of our civilization, Dr. Doan declared, and added the opinion that the fruits of atomic energy would be brought to the public only by industrial management "pouring heaven knows how many millions into this new area of exploration."

Acknowledging that many research projects never pay off, the speaker said the "net result of the system benefits everyone—the owners, the employees, the consumers." In contrast, he noted, many segments of foreign industry have been reluctant to compete freely and to accept a responsibility for progress, with the result that "the foreign consumer lags behind us in standard of living."

Referring to a "preoccupation" of modern management with "social consciousness," Dr. Doan sounded a note of warning that the means should not be allowed to become an end it itself. "The desire to live right is laudable," he declared, "but to make it meaningful we must also have the ability. I would like us to keep firmly in mind that in the final analysis we can serve the public interest only if we first adhere to our basic economic responsibilities."

He listed protection of investment and profitable operation as primary economic responsibilities and "the simple and perfectly honorable purpose underlying any economic endeavor. Incentives for new venture capital have been declining steadily," he said, "and the survival of capitalism as we know it depends upon making individual investment in the corporate entity worthwhile."

Commenting briefly on governmental tax policies with regard to depreciation of facilities, Dr. Doan declined to offer a solution but suggested business has been treated as though it were operating in a static economy—"as though the purchasing power of the dollar was constant whether in 1910 or 1930 or 1960. It seems to me," he added, "that we are going to have to take a realistic look at our tax structures and depreciation practices, and make appropriate adjustments to assure business and industry the capital needs for future growth and progress."

WISCONSIN TOUR

MADISON, WIS.—A tour of fertilizer demonstration plots in Wisconsin will be held June 18 by the University of Wisconsin, John T. Murdock and C. J. Chapman, extension soils specialists, have announced.

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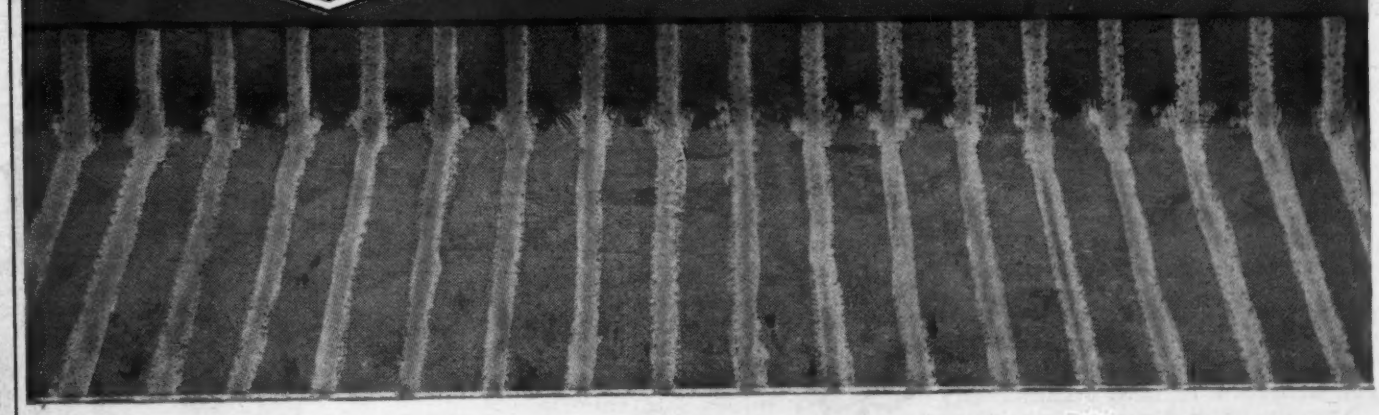

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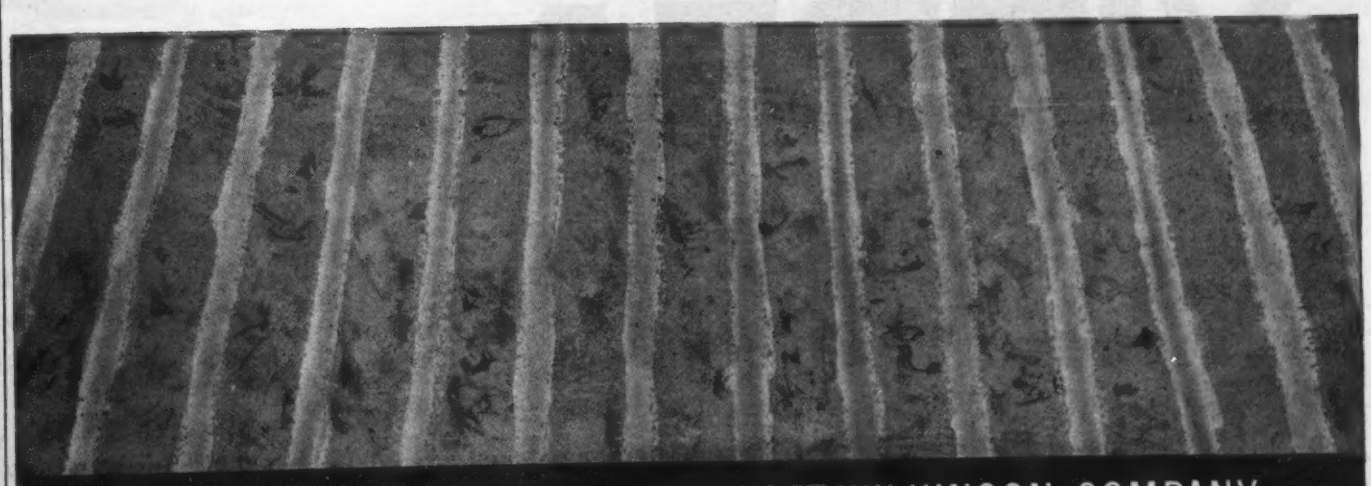

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Good Farming Practices, Low Production Costs Bring Success in Cotton Program

STATE COLLEGE, MISS.—Good farming practices, coupled with low cost of production, produced success for seven state winners in last season's Efficient Cotton Production Program for Future Farmers of America.

Yields ranged from 1,212 lb. of lint per acre in the Mississippi Delta to 217 lb. in Oklahoma dryland farming. However, yield was only an indirect factor in the selection of winners, according to O. V. Clark of Mississippi State College, chairman of the Cotton Education Committee of Vocational Agriculture in the South.

"Boys were rated on how well they applied the latest production practices learned in the classroom and on efficiency of production," he said.

Each state winner will receive an all-expense paid trip to the national FFA convention in Kansas City this fall from the American Potash Institute, sponsor of the program.

Top yield was produced by Bob Hitch, junior at West Tallahatchie High School, Tallahatchie County, Miss. He made 3,637 lb. of lint on three acres of delta loam soil. He applied 100 lb. of nitrogen, 96 lb. of phosphoric acid and 60 lb. of potash. He poisoned for boll weevils, bollworms, thrips and red spiders. By doing all the work himself, he realized a profit of $1,066.76. His teacher is C. T. Seale.

In spite of a yield of 1,520 lb. of lint on seven acres, Earl Ray Williams, senior at Granite High School, Greer County, Okla., managed to produce it for about 14¢ per pound. Jess Banks is his teacher.

Darrell Oswald, junior at Gilbert High School, Lexington County, S.C., produced 1,209 lb. of lint on one acre. He prepared his land with a tractor but planted, fertilized and cultivated with mule power. He used 61 lb. of nitrogen, 70 lb. of phosphoric acid and 92 lb. of potash at planting and side dressed with nitrogen and potash. He poisoned nine times. The teacher is L. L. Lewis.

A sophomore at Byars-Hall High School, Tipton County, Tenn., Wayne Watkins made 571 lb. of lint on one acre. At planting he fertilized with 180 lb. of nitrogen, 100 lb. of phosphoric acid and 60 lb. of potash. His cotton classed strict middling 1 1/16-inch and brought a premium. His teacher is Ralph Moffatt.

A one-acre project produced 910 lb. of lint for Haywood McDonald, junior at Cochran High School, Bleckley County, Ga. He used 400 lb. of 4-12-12 at planting and side dressed with 200 lb. of nitrate of soda and 200 lb. of 60% muriate of potash. He poisoned 14 times for boll weevils, bollworms, flea hoppers and aphids. Fred Webster is his teacher.

Tommy Kennett, sophomore at Leechville High School, Mississippi County, Ark., made 3,055 lb. of lint on four acres. To land on which vetch had been turned under for three years, he applied 120 lb. of ammonium nitrate and 200 lb. of 60% muriate of potash at planting. He defoliated with monosodium cyanamide by airplane and harvested with a mechanical picker. The teacher is Arnold Watkins.

Charlie Chamblee, senior at J. B. Pennington High School, Blount County, Ala., produced 1,078 lb. of lint on one acre. He used 600 lb. of 6-8-8 at planting on 36-inch rows. He checked for insects 13 times but had to poison only three times. Although he hired $78.50 worth of labor, he still made a profit of $204.45. His teacher is J. J. Lewis.

Dr. J. Fielding Reed, head of the American Potash Institute's southeast office says, "There's no doubt about it—these boys are doing a top job of producing cotton and doing it with scientific methods that will pay off year after year."

NPFI OFFICERS

(Continued from page 1)

Smith-Douglass Co., Norfolk, Va.; Sidney Ellis, Commercial Solvents Corp., New York, N.Y.; Robert U. Haslanger, Escambia Chemical Corp., New York, N.Y.; Stanley Learned, Phillips Petroleum Corp., Bartlesville, Okla.; A. W. Mohr, California Spray-Chemical Corp., Richmond, Cal.; W. T. Steele, Cooperative Fertilizer Service, Inc., Richmond, Va.; James E. Totman, Summers Fertilizer Co., Baltimore; Thomas M. Ware, International Minerals & Chemical Corp., Chicago.

D. H. Banks, Sr., Banks Fertilizer Co., St. Matthews, S.C., was elected to the board to fill the unexpired term of George W. Gage, Anderson, S.C., expiring in 1958, and John Christian, Monsanto Chemical Co., St. Louis, was elected to fill the unexpired term of A. Frank Reed, of the same company.

Merger Announced

NEW YORK—New York Quinine & Chemical Works, a wholly-owned subsidiary, has been merged into S. B. Penick & Co. Henceforth NYQ will be officially New York Quinine & Chemical Works, division of S. B. Penick & Co.

As this change is intended only to simplify internal corporate structure, no change in operations is contemplated.

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only fungicide, liquid or otherwise, featuring

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FERTILIZER DEALER SAYS

Case Histories Build Sales

A merchant doesn't need to be located in a large town to sell farm chemicals, Wayne George of Roundup, Texas, has learned. During the last few years, his Wayne George Elevator has developed a thriving farm chemical business.

Mr. George says that to meet competition from the nearby towns, he must give farmers just a little extra in service. Not only must the price be right, but he must know the products he sells and have an intimate knowledge of crops and farming conditions. Knowing the financial conditions of his customers helps him in working out a chemical program for them, he says.

The biggest selling aid, Mr. George says, is visiting farmers regularly, helping supervise test plots, and then keeping accurate records on cultivation and yields. On some of those farms he has a complete case history. This helps out considerably when a farmer comes to the store seeking information on fertilizers.

For instance, if the farmer asks about fertilizing corn, Mr. George will

(Continued on page 14)

Florida Dealers Explain Methods of Increasing Garden Supply Business

MIAMI BEACH, FLA.—Lyons H. Williams, outgoing president of the Florida Seedsmen's Assn., strongly recommended the appointment of a committee to develop the garden and pet supply activities of the association at the group's recent meeting.

One of the newly elected vice presidents of the group is Frank McMichael, Crenshaw McMichael Seed Co., Tampa, Fla. Mr. McMichael, who formerly served as chairman of a committee to study garden and pet supply stores, said:

"The trend is definitely toward more garden supply business by seed stores. Since World War II we have reversed our own operations from the time when seeds were our principal business and garden supplies a side line, until now when garden supplies are our principal business."

A featured speaker on the program was Claxton Mayo, Mayo Seed Co., Knoxville, Tenn. Mr. Mayo told of garden supply operations in their three stores at Knoxville. Their first store was built in the downtown area in 1920. Since then they have added two large suburban stores, and Mr. Mayo said that the suburban outlets are much more profitable and better suited for today's garden supply operations.

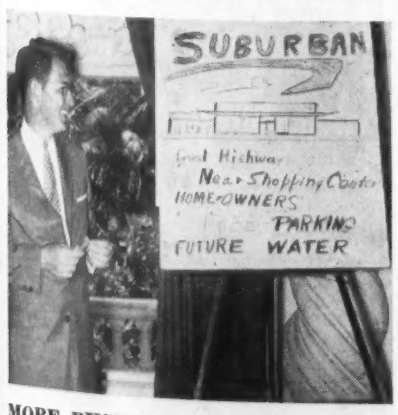
Disadvantages cited for downtown locations were unattractive surroundings, customer inconvenience, and expensive delivery service. Operating costs of downtown businesses were said to be higher per square foot of floor space, with sales volume less per customer.

"The suburban shopper," said Mr. Mayo, "usually drives her own car and can take any amount of merchandise, seldom asking for delivery service; whereas the downtown shopper doesn't want to carry merchandise, and deliveries cause sharp increases in operating expenses."

Admitting that garden supply dealers are faced with strong competition from attractive big department stores which frequently get into the field of bulbs, rose bushes, mowers and other gardening equipment, Mr. Mayo suggested that garden supply stores counteract by increasing their advertising program. "In this day and age," he said, "the smart merchandiser makes people want his products. It applies to TV sets, motor boats, automobiles, and we should make it apply to the garden supply trade. We should try to sell the idea that gardening is fun and gives one a proud and smart feeling."

Other suggestions by Mr. Mayo included means of achieving a more rounded year round volume instead of having only peak sales in the

(Continued on page 12)



MORE BUSINESS — Claxton Mayo, Mayo Seed Co., Knoxville, Tenn., used visual aids to tell members of the Florida Seedsmen's Assn. of methods his firm has used to expand the garden supply business. Primary considerations, as listed on the chart, are: Location on a good highway near a shopping center; near a lot of home owners, preferably new homes which have an adequate water supply; and adequate free parking.

Community Sprayer Boosts Weed Control Work

GAFFNEY, S.C.—A cluster-nozzle spray, mounted on a trailer, has resulted in an intensified program of weed control in grain and pastures in Cherokee County, South Carolina, reports T. B. Lee, county extension agent. The rig was purchased last winter by the County Agricultural Committee and has been used extensively this spring.

Spraying has helped clean grain and pastures of bitterweed, thistle, wild onion and dock. Cherokee County farmers use the equipment on a "community-ownership" basis.

HORTICULTURIST NAMED

CLEMSON, S.C.—Dr. W. L. Ogle has been named a member of the horticulture faculty at Clemson College. A native of Tennessee, Dr. Ogle studied at the University of Tennessee and received his doctorate at the University of Maryland. Before coming to Clemson, he taught at the University of Rhode Island. Dr. Ogle is a truck crop specialist.

SHOP TALK

OVER THE COUNTER

By Emmet J. Hoffman
Croplife Marketing Editor

Dealers cannot escape the economic fact that their accounts receivable must remain in a proper relationship with their capital and volume of business or they will face financial difficulties.

The credit business of farm supply dealers is certainly not diminishing. Credit is with us to stay. It can be an effective business building service if it is kept under control. What is most disturbing today is that some dealers are finding that credit customers whom they considered "excellent pay" customers are now sometimes overdue in their payments. In other words, there are more "slow pay" customers today than there were up to 1954.

A number of reasons seem to account for this fact: Increased costs of farm supplies; seasonal nature of the farm income; decline in farm income; drouth, and other factors.

The retail dealer has to assume the main burden of working out the problem.

Some dealers have gone to a strictly 30-day credit limit and others have gone to an entire cash operation to work out a solution. Unfortunately, too many dealers have not taken the time to develop policies and practices which would effectively cope with the mounting credit problem.

10% Increase Reported

In one survey of more than 80 retail outlets it was found that accounts receivable or sales still "on the books" had increased from 6% in 1950 to nearly 10% in recent years. The proportion of total assets in accounts receivable increased considerably—from 11.3% in 1950 to 17.3% several years later. In 1950, about 45% of the accounts were less than 30 days old, but in a few years 63% of the accounts were 30 days or more old.

In the same survey it was found that "more than one year" uncollected accounts increased 2% since 1950, the "2-month to 1-year" accounts increased 7%; the 30 to 60 day accounts remained at relatively the same percentage while the "under 30 days" accounts dropped 8%.

During this same period, total sales rose only 12% while accounts receivable were rising 68%.

The study also showed that in 1950 credit sales ranged from 32 to 66% of total sales but a few years later they ranged from 39 to 88% of total sales of the various retail outlets.

What to Do

A number of successful operators have from time to time expressed their views on correcting the credit situation. Chief among their suggestions is for the dealer to establish a realistic and sound credit policy and to stick to it without exception.

It is recommended that once the policy is established, it should be followed through on extension of credit—if that is provided—and to follow through on collections. Formal application for credit should be required and the credit policy should be discussed between the dealer and buyer so that there can be no misunderstanding. Farmers should be encouraged to use the existing credit agencies, such as banks, credit unions and other credit agencies since these are set up to do money lending, unlike the dealer.

Lastly, dealers must recognize and allocate the costs of credit by defining credit as a service and setting a price on it. This may be emphasized by allowing a discount for cash or making a charge for credit.

Florida Citrus Yields More Than Double Those of 25 Years Ago

GAINESVILLE, FLA.—Number of boxes of oranges and grapefruit harvested per acre in Florida has more than doubled, a 25-year study by the Florida Agricultural Extension Service and Experiment Stations shows.

Zach Savage, station economist, says that less than 200 boxes per acre were picked before 1942. Since then, average harvests ranged from 224 boxes in 1944-45, when a hurricane damaged the crop, to 447 in 1953-54.

Since 1931, the Florida Experiment Stations and Extension Service have cooperated with growers in conducting a citrus costs and returns study. It includes an average of 243 groves.

For the 23 seasons grapefruit trees constituted 31% of the groves over 10 years old. The average age of groves in 1953-54 was 30 years, or two years older than in 1950-51 and 13 years older than in 1933-34.

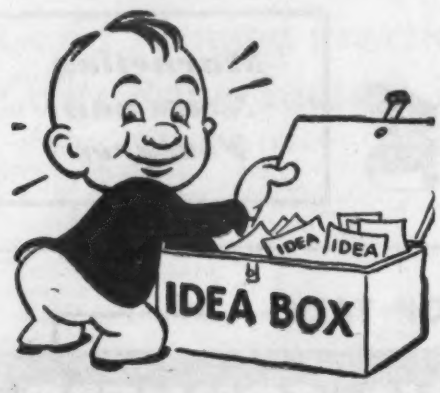
Reasons for the increase in number of boxes harvested per acre: increase in average size of trees, better fertilization, larger proportion of fruit harvested because of good prices, and development of fruit processing.

Ant Control Explained At South Carolina Meetings

CLEMSON, S.C.—The latest information on ants and their control is being presented in community home demonstrations and other farm meetings by members of the South Carolina extension service.

A booklet describing the species of ants found in the state has been made available through county agents, and additional information is being disseminated through farm radio announcements, newspaper articles and television programs.

The programs at the meetings include demonstrations in the use of insecticides by county agents and representatives of commercial firms which manufacture or sell the ant-control equipment and materials.



What's New...

In Products, Services, Literature

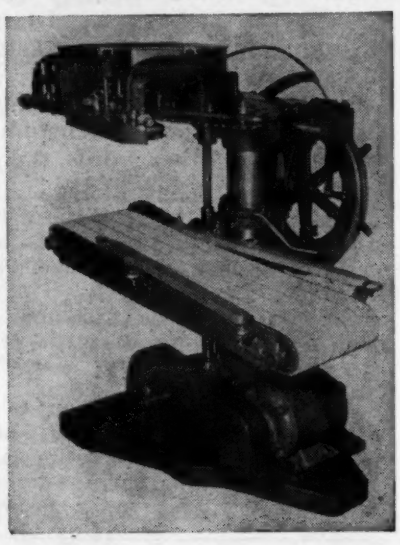
You will find it simple to obtain additional information about the new products, new services and new literature described in this department. Here's all you have to do: (1) Clip out the entire coupon and return address card in the lower outside corner of this page. (2) Circle the number of the item on which you desire more information. Fill in your name, your company's name and your address. (3) Fold the clip-out over double, with the return address portion on the outside. (4) Fasten the two edges together with a staple, cellophane tape or glue, whichever is handiest. (5) Drop in any mail box. That's all you do. We'll pay the postage. You can, of course, use your own envelope or paste the coupon on the back of a government postcard if you prefer.

No. 5719—Disc Feeder

A new series of MECO SRV variable speed disc feeders, designed especially for batching or proportioning of crushed or ground dry material such as chemicals and additives, has been announced by the Manufacturers Equipment Co. The rate of discharge on the feeders is said to be accurately controlled and can be varied during operation with a hand wheel adjustment. Several sizes are available. The smallest unit has a constant feed range from a light trickle up to 2,000 pounds per hour. Larger models can feed up to 80 tons per hour. Models equipped with paddles are available where intense bin agitation is desired. A descriptive bulletin is available. Check No. 5719 on the coupon and mail it to this publication.

No. 5736—Bag Closing Machine

A new descriptive folder outlining features of the automatic bag closing machine manufactured by the Hamer Machine Co. is available. The unit is described as a fully automatic closer for 2-, 5-, 10- and 25-lb. bags. Units are also available for 50- and 100-lb. bag sizes. An arrangement of chain drives compresses the top of



the bag and then seals it by a specially designed wire ring and up to 1,800 paper bags per hour can be closed, according to company officials. The models can be used in a variety of plant arrangements. Secure the folder by checking No. 5736 on the coupon and mailing it to this publication.

No. 5721—Pallet

The Sterling Lumber & Supply Co. reports a new development in pallet manufacture with its product called by the trade name, "Fine-Sawn" pallet. The firm's process is claimed to produce uniformly finished deckboards and stringers in fewer operations and with less waste than several other methods at less than usual cost. A "flocked" non-slip surface helps prevent bags and other items from slipping, according to the company. Details and prices are available without charge. Check No. 5721 on the coupon and mail it to this publication.

No. 6588—Sulfur Brochure

The Stauffer Chemical Co. has published a comprehensive 48-page brochure on sulfur. The brochure contains a description of production and refining techniques, statistics on the world's production of sulfur, and notes on the various uses of the material. It also includes specifications for the several types of conventional and insoluble sulfurs used in industry and agriculture, and tabulations of the physical and chemical properties of sulfur in its different forms. A copy of the brochure, "Stauffer Sulfurs," is available free on request. Check No. 6588 on the coupon and mail it to Croplife.

No. 5701—Pasted Valve Bag

Arkell & Smiths announces its new "SSS" (super side strength) multiwall bag. The bag is a standard pasted valve bag with a reinforcing strip run longitudinally along each edge to reinforce the sides and the valve and bottom corners. The manufacturer claims its new bag may save up to 10% on the cost of a sewn valve bag and up to 5% on the cost of a standard pasted valve bag. The company announcement states: "In principle, the 'SSS' bag is superior to the sewn structural strip bag: when a ply is removed from the sewn bag, the bag is weakened along the ends. The bag also is superior to the strength end bag, for it gives the bag reinforcement along the sides and shoulders; the strength end bag reinforces only the shoulders, and the sewing weakens the ends. For further information check No. 5701 on the coupon and mail it to this publication.

Also Available

The following items have appeared in the What's New section of recent issues of Croplife. They are reprinted to help keep retail dealers on the regional circulation plan informed of new industry products, literature and services.

No. 6585—Emulsifier

A development in facilitating the field mixing of emulsifiable pesticide concentrates with liquid fertilizers has been announced by the Emulsol Chemical Corp. The new emulsifier Emcol H-C is an extension of Emcol H-A and H-B which have been in production for some time, for such emulsifiable concentrates as aldrin, BHC, chlordane, dieldrin, Endrin, Heptachlor and Nemagon. The material is especially recommended for formulating emulsifiable concentrates to be used in high potash fertilizer solutions. Full details are available in technical bulletin No. 47 titled "Formulator's Manual for Liquid Fertilizer-Liquid Pesticide Mixtures." Check No. 6585 on the coupon and mail it.

No. 6587—Lime, Fertilizer Spreader

Ten-ton loads of lime and fertilizer are claimed to spew from custom bodies on the International Harvester Company's model VF-192 motor trucks at a 1½-tons-per-minute rate in soil building services provided by the Cooperative Grange League Federation Exchange, Inc. to member farmers in New York, New Jersey and northern Pennsylvania. Newest units of the 175-truck fleet GLF em-

ploys in this agricultural service are like that pictured above at Nichols, N.Y., RF-192 tandem models. The six-wheelers, with auxiliary transmissions, spread acreage that ranges from flat to hilly, rough and soft. Front truck tires have on and off highway casings and the eight rear tires have lug treads. Spreading gear fabricated in the GLF shops here was designed by the cooperative's soil building division. Truck transmission is five speed, with direct in fifth. The auxiliary two-speed transmission permits specific range variances for lim (high) and fertilizer (low). Secure complete details by checking No. 658 on the coupon and mailing it to Croplife.

No. 6589—Hose Pump Spreaders

A selling and renting plan for Linck's liquid spreaders has been set up for dealers, according to the O. M. Linck Co., Inc. The program offers a line of concentrated lawn chemicals and patented liquid spreaders, which were developed under the patents of the University of Tennessee, according to Linck officials. A folder on the program outlines the firm's line of

Send me information on the items marked:

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- ☐ No. 5701—Valve Bag
- ☐ No. 5710—Buildings
- ☐ No. 5719—Disc Feeder
- ☐ No. 5721—Pallet
- ☐ No. 5736—Bag Closer
- ☐ No. 6579—Rotary Dryers
- ☐ No. 6580—Chlorosis
- ☐ No. 6581—Liquid Unit
- ☐ No. 6582—Resistance Folder
- ☐ No. 6583—Tanks
- ☐ No. 6584—Soil Bag
- ☐ No. 6585—Emulsifier
- ☐ No. 6586—Applicator
- ☐ No. 6587—Spreader
- ☐ No. 6588—Sulfur Brochure
- ☐ No. 6589—Liquid Spreader

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CLIP OUT —FOLD OVER ON THIS LINE— FASTEN (STAPLE, TAPE, GLUE)— MAIL

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P. O. Box 67

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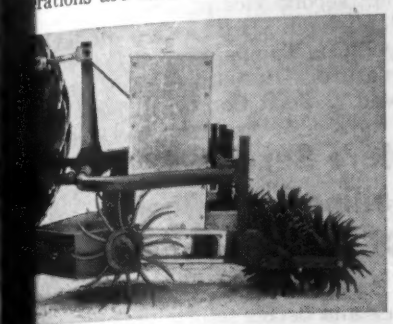
n chemicals, including a crab
ss killer, weed killer, fungicide, in-
icide, fertilizer, nitrogen, iron and
ting agent. Secure the details by
cking No. 6589 on the coupon and
ling it to Croplife.

o. 6586—Dispenser-pplicator

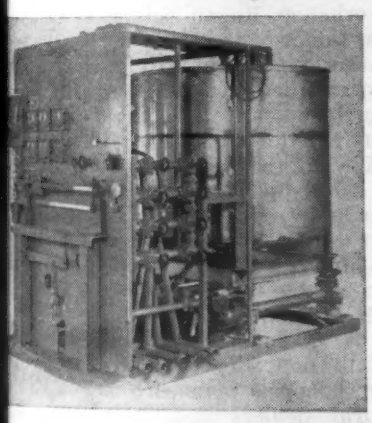
he Howry-Berg Steel & Iron
rks has engineered and tested a
bined machine which is claimed
dispense all dry chemicals through
use of a conveyor belt arrange-
nt, and thoroughly mixes the
micals into the soil by means of
cial tiller applicator wheels. Both
rations are said to be accomplish-



simultaneously, placing the chem-
ls only where needed, without loss
m wind drift. Machines are at-
hable to tool or cultivator bars
unted on farm tractors and are
ainable for band widths of 6, 8, 10,
and 18 in. Tiller applicator units
ipped with spray nozzle holders
use with wettable chemicals are
o available for band widths 4 to 18
in increments of 2 in. Secure com-
te details by checking No. 6586 on
coupon and mail it to Croplife.

o. 6581—Liquid ertilizer Unit

Indian Point Farm Supply an-
unces the production of its new
e-ton batch liquid fertilizer unit.



he plant will produce 200 tons per
y, state company officials. Their
nouncement continues: "Ingredi-
ts are weighed in the stainless
el tank. Potash and urea are in-
oduced with the fiber glass cup
evator. All control valves for mix-
g, pumping to storage and loading
t spray trucks are within easy
ach of the operator at the control
nel. The unit can be purchased
parately or complete with all stor-
e tanks, plumbing and load-out
es." Pictured is the skid mixing
it. To secure complete details check
o. 6581 on the coupon and mail it
Croplife.

No. 5710—Steel Buildings

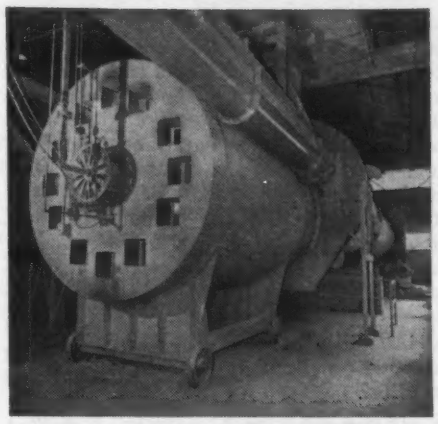
Black, Sivalls & Bryson, Inc., an-
unces a new line of "Perfection"
efabricated steel buildings for fac-
ry, farm and commercial use. A
uss-type building with panel side-
alls and ends, the building is avail-
le in a variety of standard sizes
d styles in regular increments up
100 ft. in width, 20 ft. in height
d unlimited lengths. Prefabricated
all panels, with door and window
ames installed during fabrication,
ermit quick erection of the build-
gs, it is claimed. The roof is the
ly area requiring sheeting in the
eld. Available with the building are
dustrial windows, doors, translucent
roof panels, insulation, guttering, ventilators and louvers. Partitions, cranes and monorails are also available upon special request. Secure details by checking No. 5710 on the coupon and mailing it to this publication.

No. 6583—Rubber Lined Tanks

A booklet entitled, "Corrosion Protection for Agriculture and Industry," has been published by the Gates Rubber Company Sales Division, Inc. The booklet provides information about the flexibility and uses of the company's rubber lined tanks, including the storage of nitrogen fertilizer. Check No. 6583 on the coupon and mail it to secure the booklet.

No. 6579—Rotary Dryers

Information about Standard-Hersey dryers for processing potash and other chemicals is available from the Standard Steel Corp. The company,



specializing in the design and manufacture of rotary dryers since 1878, has made rotary dryers up to 12 ft. in diameter for the fertilizer industry. These concurrent rotary dryers, with floating tires mounted on shims and held in place by keeper blocks, are typical of Standard-Hersey installations in the potash and fertilizer industry, company spokesmen said. Pictured is the burner end of an 8-ft. diameter by 60-ft. long rotary dryer in operation at the potash refinery of the National Potash Co., Carlsbad, N.M. For complete details check No. 6579 on the coupon and mail it to Croplife.

No. 6580—Chlorosis Treatment

Chlorosis—caused by a deficiency of iron in plant and tree leaves which often results in below-standard harvest—can now be treated through the use of Greenz 26, an iron complex especially developed by the Crown Zellerbach Corp. for use as a leaf spray. The firm's announcement states: "When applied to foliage, Greenz 26 solution: (1) turns chlorotic yellow leaves green; (2) restores vitality to iron-deficient plants; and (3) improves quality and quantity of crop from iron-deficient trees and plants. The product may also be used for soil application to potted plants or plants having small root volume close to the surface. It can be ap-

This advertisement is part of a continuing Monsanto Campaign to help you sell LION AMMONIUM NITRATE.
AMMONIUM NITRATE
LION AMMONIUM NITRATE
LION

*Trade-mark of Monsanto Chemical Company

You save money with LION in your fields

LION BRAND AMMONIUM NITRATE IS MORE ECONOMICAL THAN NITRATE OF SODA OR AMMONIUM NITRATE–LIMESTONE CARRIERS

FOR LOW-COST NITROGEN, LION Ammonium Nitrate is the brand. Guaranteed to contain 33.5% nitrogen, LION is...

- **Far more economical** than nitrate of soda, which contains only 16% nitrogen. You get more than *twice as much* of the valuable plant food, nitrogen, in every bag of LION brand Ammonium Nitrate than you do in any bag of nitrate of soda.
- **A better buy** than 20.5% ammonium nitrate–limestone carriers, LION gives you *better than* 50% more nitrogen in every bag.

FOR EASIER SPREADING, Lion Ammonium Nitrate is in pellet form. These pellets are specially coated to withstand caking ... then packed in specially lined, moisture-resistant bags. Result: LION brand is *guaranteed* to flow freely—*not for just a year, but until used*—when you follow storage directions on the bag.

3 EASY STEPS TO GET ALL THE FEEDING-POWER YOUR CROPS NEED

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2. ORDER WHAT YOU NEED of mixed fertilizer and Lion brand Ammonium Nitrate from your fertilizer dealer. When you buy LION, you get top-quality, low-cost nitrogen fertilizer *guaranteed* to flow freely; *guaranteed* to contain 33.5% nitrogen.

3. APPLY THE FULL AMOUNT of mixed fertilizer and Lion brand Ammonium Nitrate soil tests indicate. Don't skimp—fertilizer is the least expensive item you use for crop production.

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Weed Killers • Brush Killers • Parathion Insecticides • Meta-Green® to keep silage fresh • Phosphates (liquid and solid) • LION Sulphate of Ammonia • Anhydrous Ammonia.

MONSANTO

MONSANTO CHEMICAL COMPANY • Inorganic Chemicals Division • St. Louis 1, Mo.

plied with any type of spray rig." For further information check No. 6580 on the coupon and mail it to Croplife.

No. 5693—Separator Catalog

A new 22-page catalog describing vibrating screen separators, called by the trade name, Sweco, has been issued by the Southwestern Engineering Co. The equipment is used for the screening of many types of dry materials, including some used in grain and feed processing, and the chemical industry. The catalog is well-illustrated and is in two colors. Operational details are provided. Check No. 5693 on the coupon to secure the catalog.

No. 6584—Soil Sample Bag

A standard paper bag designed specifically to hold soil samples for chemical analysis has been developed by the Shellmar-Betner Flexible Packaging Division of Continental Can Co. The company states the bags are "clean and easy to mark" and "are made of sturdy bleached Kraft paper, lined with protective glassine paper." Each bag is equipped with a steel tie that rolls up to further protect the soil contents. They can be supplied either plain or imprinted with a form that lists the farmer's name, bag contents and crop information. The bag is 3⅜ in. wide by 2½ in. deep (front to back) by 9⅜ in. tall. For complete details check No. 6584 on the coupon and mail it to Croplife.

No. 6582—Insect Resistance

The American Cyanamid Co., phosphates and nitrogen division, has available new literature discussing insect resistance to insecticides. Part of the literature is a folder entitled, "Malathion Insecticides, Grower's Guide." In the folder is a detailed spray and dust chart for Malathion use on fruit trees, citrus trees, vegetables, field crops, ornamentals and greenhouse plants. The product's use in fighting household insects is also outlined. Check No. 6582 on the coupon, clip and mail it to Croplife to secure the literature.

FLORIDA DEALERS

(Continued from page 9)

spring and very poor volume the rest of the year. He encouraged the sale of outdoor furniture and plants during summer months; and special seasonal promotions such as trees and ornaments during Christmas time; and nuts, bird cages and pets in the fall.

The seedsmen were elated to learn during the convention that a new Florida seed law had been enacted which calls for the appointment of an arbitration committee to investigate damage suits against seedsmen by farmers. The seedsmen claimed that they seldom got justice in the courts because the old law provided no protection against nuisance suits which were often said to be nothing less than blackmail or extortion. Under the new law complaints will be investigated by a five-man committee appointed on the recommendation of the following: Director of the Florida agricultural experiment station; director of the Florida agricultural extension service; president of the Florida Seedsmen's Assn.; president of the Florida Farm Bureau; and the commissioner of agriculture.

New officers elected for the coming year were: President—Edward S. McCall, W. Atlee Burpee Co., Sanford, Fla.; first vice president—Dr. John Bellows, Hector Supply Co., Miami, Fla.; second vice president—Frank P. McMichael, Crenshaw McMichael Seed Co., Tampa, Fla.; and secretary-treasurer—Bernard Cannon, Security Feed & Seed Co., Ocala, Fla.

More Service, Better Selling to Be Theme Of Dealer Workshop

BATON ROUGE, LA.—More service and better selling, from the viewpoint of both merchant and customer, will be the theme of an Agricultural Dealers' Workshop to be held at Louisiana State University June 23-28. Agricultural dealers throughout the state are being invited to attend or send their employees. Sponsors will be the Louisiana Seedsmen's Assn. and the LSU Agricultural Extension Service.

The workshop staff will be made up of agronomists; horticulturists; dairy, beef cattle and swine specialists; seed breeders, and fertilizer and insecticide experts from the university and from business and industry throughout the South. Those attending will receive certificates certifying successful completion of the six-day short course.

Discussing the purposes of the workshop, Ragan Nelson, Alexandria, president of the Louisiana Seedsmen's Assn., points out that those who sell agricultural supplies, especially seed, fertilizer and insecticide, need to know a lot more than just the price of what they sell and how to fill out a sales slip. The customer often wants to know both what to buy and how to use it. For his own sake and the customer's sake, the salesman needs to be able to give intelligent answers, Mr. Nelson said.

H. C. Sanders, director of the LSU Extension Service, says that the workshop is planned to help agricultural dealers and their employees with information they need to sell most intelligently and to be of maximum assistance to their customers. The extension director points out that most studies of where farmers get most of their information on new developments in agriculture place agricultural dealers high on the list of sources.

The workshop sessions will cover a wide range of topics in the field of crop and livestock production, with special emphasis on proper use of improved seeds; better livestock and poultry feeding methods; approved fertilization rates and methods for field crops, horticultural crops and pasture crops; and the use of insecticides, fungicides and herbicides in crop and livestock production. The program will include round table discussions, demonstrations, lectures, several luncheons and tours of the University farm for inspection of greenhouses, livestock and poultry farms and experimental projects.

Firms contributing personnel to the workshop staff include American Potash Institute, Corneli Seed Co. of St. Louis, Cotton States Chemical Co. of West Monroe, La., Olin Mathieson Chemical Corp. of Jackson, Miss., the Du Pont Co., California Spray-Chemical Corp. of Richmond, Cal., Coker's Pedigreed Seed Co. of Memphis, Stoneville Pedigreed Seed Co. of Stoneville, Miss., and the Ralston Purina Co. of Atlanta.

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Nature can go only so far in providing vitally needed Potash. Fast-growing, high-producing crops can easily exhaust the available soil supply—and then it's up to you. That's why it's good business to be sure your fertilizer program includes plenty of POTASH—either in your mixed fertilizers or as a supplemental application.

American Potash & Chemical Corporation is a basic supplier of Potash. Consult your fertilizer dealer today and be sure to specify plenty of TRONA® POTASH, *the vitally needed plant food.*

American Potash & Chemical Corporation

TRONA

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214 WALTON BUILDING, ATLANTA 3, GEORGIA

Doing Business With

Oscar & Pat

Oscar Schoenfeld slipped the key the door lock on the office and sroom of the farm supply firm, ned the key and then pushed the r in.

He glowed with satisfaction, as he ays did when he knew he was the t one on the job every morning. It de him feel superior to his part-, Pat McGillicuddy, who frequent- did not come to the office until nt or nine o'clock. Too, being early de Oscar feel superior to the firm's employees who usually came at .m. sharp. He would show them t one boss out of two was there to that they went to work on time.

Now as Oscar stepped into the sroom, his eyes popped wide. ch, what is this?" he asked aloud. stared at a number of small signs out 4 in. high and 18 in. long, each ring a name in black on a white kground. The signs were attached center of the store pillars while ne hung from the ceiling on wires.

Slowly Oscar stared at the mes as he read them: "Potash lace, Phosphorus Road, Nitrogen venue, Anhydrous Lane, Lime urnpike."

Comprehension seeped into Oscar's ually slow mind. "Ach, that Pat!" growled. "Some more of his fool- ness. Always at night he comes wn here when I am home and does s decorating and scheming. Why esn't he work nine hours every day, same every day, like I do?"

At this moment, plump, ulcerish lie Mason, the bookkeeper, came She was clad in a light blue sum- ry dress which matched her eyes. e, too, stopped and stared at the ns which named the various long d cross aisles in the well stocked rm supply store.

"Oh, how cute!" she exclaimed. ll bet—" She broke off, seeing the ern look on Oscar's face.

"Yes, it's that crazy Pat did it," car snapped. "More of his foolish- ss. He used good lumber for those gns, and lots of paint, too. Why esn't he spend more time going out llecting delinquent accounts instead doing foolishness like this?"

Tillie coughed discreetly. "I'll bet other farm supply store has signs e this, Oscar. Maybe it's a good ea. Every time farmers come in ey'll see some of those signs. It will mind them of the importance of rtilizer. Potash Place! That sounds ry interesting."

Oscar's face got red. "Ach, why idn't he make another sign and let read 'Crazy Street,' and put it ght alongside his desk? That ould be the place for it."

Even Tillie snickered a little about at. Then the door from the ware- use opened and Red Hendrickson, e of the trusted employees, stood ere grinning. "Say, Oscar, those gns in the warehouse look mighty teresting. It's going to be fun get- ' fertilizer in the different aisles."

"What!" cried Oscar, "are there gns out there, too? Himmel!" He shed to the door leading to the arehouse, pushed Red Hendrickson ide and looked. He was so surprised stood stock-still.

"Gemutlichkeit Boulevard!" he id sharply. "Ach duLieber." He zed horror stricken at two other gns, "Weiner Schnitzel Ave." and Hasenpfeffer Street."

"I don't know who to give the ize to, for the best signs," Red endrickson said with a grin. "You or Pat. Look, the Irish signs are over on this side."

Oscar turned to gaze where Red pointed and saw signs on warehouse aisles which read "Shillelagh Road," "Killarney Drive" and "Shamrock Lane."

"I did not have anything to do with this foolishness!" Oscar snorted. "That's crazy Pat. We will be the laughing stock of the whole country!"

"Oh, no," said Red Hendrickson. "I'll bet the farmers will like it. It's good advertising. And as for us who work here, it'll be fun, too. You can mark every order for the proper street. 'Red,' you can say, 'Get two bags of 10-10-10 for Mrs. O'Grady. You'll find them on Hasenpfeffer Street. And pick up a bag of peat moss from Shamrock Lane for her, too.' "

"Mrs. O'Grady!" echoed Oscar. "Irish—I'll bet it will be a charge account and we won't collect for 120 days. We like cash business."

The door from the office opened and a tall man in a blue suit, carrying a camera and flash attachment came in. He was Bill Lamers, the photographer for the local newspaper.

"Oh, Oscar!" he said cheerfully. "Where's Pat? I want to get a picture of you fellows standing with these signs. You can pose by the Gemutlichkeit Blvd. sign and Pat maybe can stand by the Shillelagh Road sign."

"I will not!" Oscar thundered. "I never heard of such crazy stuff before. This is a fertilizer store, not a department store."

"But this publicity in the newspaper won't cost you anything and lots of farmers will read it!" explained the photographer.

"Ach, and they will laugh, too!" Oscar sneered.

"It will still be good advertising for this firm," said Bill Lamers, puzzled at a man who would turn down free publicity.

"Nein, nein, nein!" snapped Oscar angrily.

At his desk he sat fuming for a few moments, backbone stiff as a ramrod, ears red as a beet. Then suddenly he grabbed a large sheet of stationery, turned it over so the printing didn't show, and then scribbled something on it.

The copy on the sign read "Cash Avenue."

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Soil Insecticides for Control of Corn Pests Show Good Results in Arkansas

By WILLARD H. WHITCOMB*
Entomologist, University of Arkansas

For several years farmers in the Corn Belt have been getting good results by chemically treating the soil to control soil insects. The corn pests against which these insecticides are being used are not destructive in Arkansas. However, similar soil pests are taking a toll from Arkansas corn harvests. The most important of these are the sugarcane beetle (or rough-headed cornstalk beetle), wire worms, and southern corn rootworm.

With the cooperation of county agents and farmers, a few trials using soil insecticides were made on Arkansas farms in 1955. In 1956 some 25 trials were completed. In 1957, more than twice that many are planned.

From the first, these trials have been backed up by randomized replicated plot experiments. The complete experiments, however, cannot penetrate every nook and cranny of the state in the same way the trials do. Nor can they always catch the infestations.

In 1956 trials consisted of about one-half acre of treated corn field and one-half acre of non-treated field. On some farms this was modified somewhat for local conditions. On many farms, two or three different insecticides were applied side by side, along with the ever present check.

Aldrin and heptachlor were used most often, at approximately 1¼ pounds of technical material per acre. The farmer planted his corn as usual, but at planting time the insecticide was applied in a band in the drill row where the seed was planted. In many cases the insecticide came already mixed with the fertilizer. It is very important that the insecticide not be placed too deep, where the insects will not come in contact with it.

Differences appeared first in stand counts. Only one treatment failed to show any increase of stand over the untreated corn. Stand counts were made by counting the number of plants in 300 feet of row. Three of these counts were made at intervals of two weeks. The first reading showed an average increase of 13.2% in stands on treated plots; the second reading showed treated plots to be 16.2% better; and the third reading gave the treated plots a 17.7% better count.

Stand counts and, later, yields varied greatly due to variations in infestation. Where there was little or no infestation of destructive insects, no improvement was obtained by applying insecticides. On the other hand, where the soil was full of sugarcane beetle or other pests, the treated plot might be 50 or 60% better than the check.

Harvest results were particularly interesting. In 16 out of the 25 trials the yields were markedly better in the treated plots than in the checks. The average yield for all plots showed a 7.07 bu. gain for the treatments. The range in gains was from 0 to 35 bu. per acre.

In 5 plots the treated area yielded less than the untreated. The losses were due to soil variation and not to insecticidal effect. Where, by chance, the soil was lighter on the treated plot, the 1956 drouth exacted a greater toll there than on the check.

Trials must be carried on for at least another year. Also, results from the randomized plot experiments must be counted in. However, it appears that soil treatment is going to help many of the corn farmers in Arkansas meet some of their insect problems. This is especially true where corn is planted after sod, where corn is planted early to avoid southwestern corn borer damage, and in fields that have consistently suffered in the past from soil insect attack.

* Reprinted from the current issue of Arkansas Farm Research, published by the University of Arkansas Agricultural Experiment Station.

CASE HISTORIES

(Continued from page 9)

likely tell him the story of Frank Karvas, who in 1956 produced 82 bu. per acre on a 98-acre field. Mr. Karvas used 200 lb. of 12-20-0 before planting time, then at first cultivation put down 100 lb. of 33½% nitrogen. Mr. George furnished the fertilizer, then bought the corn last autumn from Mr. Karvas for $1.52 bu.

Mr. George will also tell the customer that Mr. Karvas spent $30 per acre for fertilizer and poisoning, and in just a few minutes prove how much greater was the net profit as compared to an ordinary corn crop of the area.

"This is the best sales talk I know," Mr. George says. "I don't need to brag on the fertilizer or read what the manufacturer says. I've got records to prove it, and these customers will back up my statements."

If a farmer wants fertilizer for cotton, Mr. George also has records to show just how much more cotton each hundred pounds of fertilizer will make.

Another thing that pays off is knowing each detail of the cropping system used, which includes time of watering, plowing and putting on fertilizer. This kind of information is invaluable, Mr. George says.

Mr. George has learned that even in a rural hamlet, the merchant must give as much one-stop service as possible. Since farmers drive to town several times a week, they can buy what they need in the larger place. To hold this business, Mr. George not only sells supplies, seed, fertilizer and insecticides, but he buys their grain crops in the fall of the year.

"I think a dealer must be interested in what he sells and believe in it," he says. "I know we need more fertilizer here. Other areas still make more cotton per acre than we do because they use twice as much fertilizer. Yet the process of education takes time.

"By increasing the amount gradually and keeping records on what it does, we'll soon reach the optimum amount recommended. It may take two or three years longer, but it's the most sensible method."

MASTER AGRONOMISTS

STILLWATER, OKLA. — Among those receiving "master agronomist" degrees at the recent Oklahoma State University agronomy field day were W. E. Irwin, Phillips Petroleum Co., Bartlesville, Okla., and Russell Pierson, Nichols Seed & Fertilizer Co., Oklahoma City.

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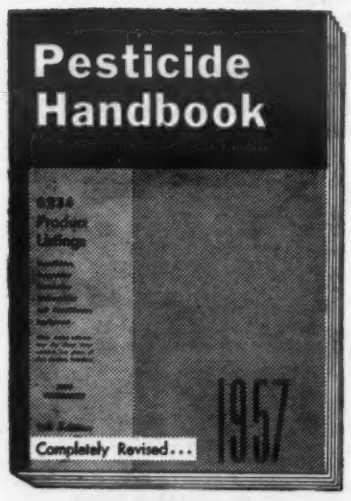

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about the editor —

Dr. Donald E. H. Frear, Editor of PESTICIDE HANDBOOK 1957, is one of the leading authorities on the chemistry of pesticides. He is the author of "Chemistry of Insecticides and Fungicides," the first book dealing with this subject published in the United States. In addition, he has written several other books, including "Chemistry of Insecticides, Fungicides and Herbicides." Dr. Frear is Professor of Agricultural and Biological Chemistry at the Pennsylvania State College.

FARM SERVICE DATA

Extension Station Reports

Although the average Louisiana farmer is doing a pretty good job, he could do an even better one, the Louisiana Agricultural Extension Service points out.

The average farmer uses about 30 lb. of nitrogen to the acre on his corn land and makes about 25 bu. of corn to the acre. The top notch farmer uses 80 to 120 lb. of nitrogen on his corn land and makes 50 to 70 bu. on hill land or 70 to 100 bu. on river bottom land. He also uses phosphate and potash if they are needed.

The average farmer on alluvial soils uses 30 to 40 lb. of nitrogen to the acre and makes three quarters of a bale to a bale and a quarter of cotton to the acre. The top notch farmer uses 60 to 100 lb. of nitrogen on alluvial soils and makes one and a half bales to two bales per acre. The average farmer makes little profit with a bale to the acre. The top notch farmer does much better with one and a half to two bales.

The average farmer does not care whether his soil needs lime. The top notch farmer has his soil tested, applies lime as needed and increases cotton yields as much as a quarter of a bale to the acre.

★

Efficient crop production in Virginia is being held back because of inadequate or improper use of lime on many farms, say Virginia Polytechnic Institute agronomists. They say only about half of Virginia's farmers are using all the liming materials they could use profitably.

A recent report shows that 500,000 tons of liming materials were used in Virginia in 1956. To promote the pH needed for top crop production in the state would require 2,000,000 or more tons. To maintain the desired pH, after it is attained, would require about 1,000,000 tons of lime annually —twice the tonnage used in 1956, the agronomists say.

★

Soybean production in Tennessee is becoming more important each year. According to H. W. Luck, assistant University of Tennessee extension agronomist, this is due to increased acreage and improved production practices. By using recommended varieties, inoculating the seed, fertilizing and liming according to soil test, and following a good weed control program farmers can secure more profits from their soybean acreage, he says.

The use of sufficient lime is a must where high yields are desired. Proper liming and fertilization should be based on the soil test results from representative soil samples. An application of 150 to 200 lb. of 0-20-20 has given good results on most soils of the state.

★

Louisiana cotton growers have a big job on their hands this year if they are to continue their record of producing the same size crop regardless of the acreage to be planted, says J. W. Carson, associate agronomist with the Louisiana State University Agricultural Extension Service.

In 1954 on 688,000 acres Louisiana growers produced 572,000 bales of cotton. In 1955 on 615,000 acres they produced 584,000 bales and in 1956 on 560,000 acres they produced 582,000 bales.

This year, it will be necessary for them to produce an average of 578 lb. of lint per acre if they come up with their usual crop of 580,000 bales on the 486,000 acres that they have for planting this year.

To do this, Mr. Carson points out, they will have to produce an extra 77 lb. of lint, or 15% more per acre than was produced last year. However, this yield as a state average should not be too hard to make, Mr. Carson adds, since the average cotton grower does not use one-half as much plant food as is recommended by the experiment station. An application of 80 lb. of nitrogen per acre and, on soils where phosphate and potash are needed, 60 lb. each of these elements has been found to be profitable.

★

Watermelon growers should plan to sidedress their crop, lay by their melons with high beds, avoid spreading gummy stem rot and downy mildew and provide sufficient bees to pollinate their crops. These suggestions are made by Hugh A. Bowers, Clemson (S.C.) extension truck crops specialist.

He says the total amount of fertilizer used should be at least 800 lb. per acre, preferably 1,000 lb. or more, of a 5-10-5, 4-12-12, or 3-12-12 mixture. If a sidedresser is used, it should be applied to both sides of the bed. Some growers may want to apply 75 to 100 lb. of nitrate of soda per acre when they thin melons to make the plants grow off rapidly, Mr. Bowers said.

He noted that some growers apply 100 to 200 lb. per acre of 10-0-10 or 14-0-14 fertilizer in the middle of the alleys at lay-by time to help plants make their final growth and to keep the vines green longer. It is important to use plenty of potash because it helps to improve the cutting quality of the melons, Mr. Bowers said.

★

Benzene hexachloride and dieldrin have been found to be effective in protecting young pine seedlings from pales weevils, points out A. S. McKean, forester with the Louisiana State University Agricultural Extension Service. Both insecticides can be used as a spray for treatment of the soil around the seedlings, and dieldrin is also effective for dipping seedlings before planting, he said.

"Work carried out by the U.S. Forest Service at its Southeastern Forest Experiment Station in Asheville, N.C., indicates that use of either benzene hexachloride (BHC) or dieldrin should make it possible to plant seedlings in pine areas where pales weevils are present," Mr. McKean said.

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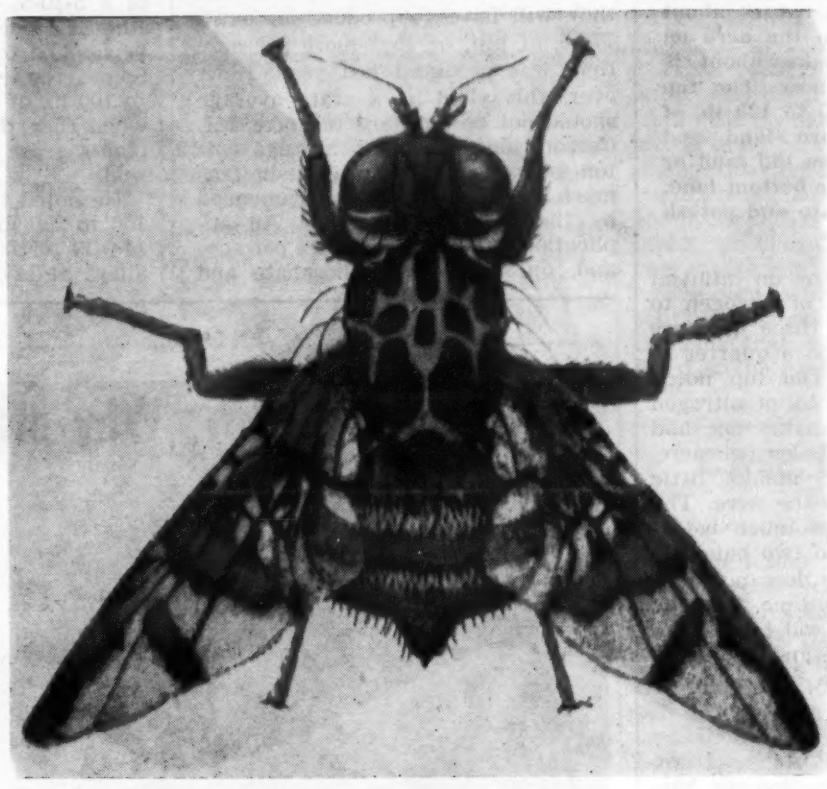
BUG OF THE WEEK

Mr. Dealer—Cut out this page for your bulletin board

Mediterranean Fruit Fly



How to Identify

This pest is smaller than the common housefly, with a glistening black thorax and a mosaic pattern of yellowish-white lines. A yellowish abdomen with two silvery crossbands mark that portion of its anatomy, and the wings are banded and blotched with yellow, black and brown.

Life History of Fruit Fly

The eggs develop into larvae in from two to three days. The larvae feed inside the fruit for about 10 days, then drop to the ground and enter the pupal or cocoon stage. They remain just under the surface of the ground for about 10 days, during which time they become adult flies and emerge and start the reproducing cycle again. Under optimum conditions, flies may live for as long as a year, but usually, their life span is but a few months. During her lifetime, a female may lay as many as 800 eggs in batches of two or three, or as many as eight to ten. The Mediterranean fruit fly was first discovered in the U.S. in 1929, in Florida. An energetic campaign with state and federal funds eradicated the insect from a large area of the state. None had been found in the U.S. between 1930 and 1956, when it made its appearance again. Quick action and an unprecedented effort by both ground and air application have apparently succeeded in eliminating the pest from the country.

Damage Done by Pest

Maggots developing in the pulp of the fruit devour much of the substance and open the way for fungus and bacterial diseases. Egg punctures made by adult flies affect the shipping qualities of the fruit. Many kinds of fruit are attacked by the Mediterranean fruit fly. These include particularly oranges, grapefruit, peaches, nectarines, plums, apples, and many others. Its depredations could well destroy entire crops of various fruits if the insect should get out of hand.

Control of Mediterranean Fruit Fly

Unlike usual projects which have as their aim merely good control of an insect, the campaign against "Medfly" was one of complete eradication. The State of Florida was covered from end to end by some 25,000 plastic traps, baited with oil of angelica seed which attracts male flies. Quarantine of infested areas was necessary to prevent possible spread of the fly through unauthorizd shipments of fruit and vegetables. Road blocks were employed at strategic points, and both single and multi-engined airplanes as well as power and hand sprayers were used in well-planned coverage of the millions of acres treated. Routine trapping along the seacoast, air and border ports, in areas where host fruits are produced, in states along the South Atlantic and Gulf Coasts and the Mexican border will be continued indefinitely as a precaution against possible re-entry of the pest into the U.S.

Illustration of Mediterranean Fruit Fly from Florida Citrus Mutual Bulletin.

SOIL AWARDS

(Continued from page 1)

the Missouri Press Assn. early in y. And, according to Mr. Gillie, e announcement generated considble interest among the newspaper tors present at the luncheon.

Marshall Christy, university extenn soils specialist, brought the ncil members in attendance up to te on their project to distribute tilizer test plot signs over the te. He said that the bulk of the 0 signs ordered and paid for by the ncil has been distributed for use 67 Missouri counties.

The large, metal signs are deigned to attract more attention to rtilizer benefits by marking test lots. In addition to labeling the st plots, the signs also point out hat they are a project of the Misouri Agricultural Extension Serice and the Missouri Soil Fertility nd Plant Nutrition Council. Total ost of the sign project was $510, Mr. Christy said.

Mr. Christy was followed on the ogram by John Falloon, his coorker on the extension soils proct in Missouri. In his appearance, r. Falloon made note of a series of rtilizer dealer meetings the extenon service and council sponsored ring the past year.

Fifteen meetings, emphasizing pasre improvement, were held last ctober for the benefit of fertilizer alers in the state, he said, and 15 ditional winter dealer meetings ere held in January and February. ill another 15 meetings are planed for early fall this year.

All of the meetings were held unr the supervision of the extension rvice soils specialists but the coun l helped in making meeting arngements. And, quite often council presentatives also helped by makg program appearances, he said.

Mr. Falloon also reported on the ogress being made in the council's tempt to establish a 4-H soil ferlity project for the benefit of club embers in the state.

Also appearing on the program was ick Balser, Spencer Chemical Co. presentative from Kansas City, ho headed the council's publicaons committee for the past year. s chairman, he and committee embers Mr. Falloon and George ickstrom, American Potash Instite, Columbia, were responsible for riting, editing, and printing the uncil's quarterly publication.

Purpose of the publication is to ep members up to date on the uncil's present and future activies and plans. It has also been used solicit membership in the council, r. Balser said.

Dr. W. A. Albrecht, chairman of e university's soils department, mplimented the council on its instry in setting up the numerous ograms in the three years of its istence.

"The council should feel that it has en challenged to take part in the ucational program for better plant utrition," Dr. Albrecht said, "and ch council member should make mself a committee of one to see at the challenge is accepted."

At the election of officers, B. B. Mainord, representative of the Farm Bureau Service Company of Missouri, New Florence, was elected president of the Soil Fertility and Plant Nutrition Council. For the past two years, Mr. Mainord had been secretary-treasurer of the organization.

Austin Mount, Davison Chemical o., Joplin, was made vice president d Mr. Balser was named the new cretary-treasurer.

Mr. Gillie, Mr. Falloon, Dr. Alecht, Mr. Mainord, Mr. Mount, and r. Balser also serve on the coun's board of directors. Other direcrs include Victor Sheldon, Olin Mathieson Chemical Corp., St. Louis; Frank Hoffman, fertilizer dealer, Trenton; Robert Weise, Virginia-Carolina Chemical Co., St. Louis; and Jake Jacobs, Missouri Plant Foods, Sikeston.

Final activity of the annual meeting was a tour of experimental soils work at the university's South Farms. Council members retraced tours taken by Missouri farmers earlier in the week at the soils and crops field days sponsored by the soils and field crops departments at the university.

The group visited soil plots relating to experimental work with organic matter, phosphate carriers, nitrogen on corn, alfalfa fertilization, irrigation, and pasture improvement. On the field crop side of the tour, stops were made at plots where work is being done on small grain breeding, alfalfa varieties, legume and grass pasture combinations, and chemical weed control in corn and soybeans.

Chemical Aids Pine Growth in Minnesota Forest Studies

ST. PAUL — Minnesota foresters have found a way to encourage natural regrowth of white pine by chemical spraying. Henry L. Hansen and Roy R. Johnson, forestry research workers at the University of Minnesota, report that spraying with "monuron"—a chemical herbicide—resulted in up to 16 times as many white pine seedlings as in unsprayed areas.

Effectiveness of the treatment in the sprayed plots was due to the chemicals controlling aspen and other vegetation and leaving more growing room for the pine. The studies were conducted at Itasca State Park.

The foresters used experimental plots that contained old-growth white pine along with quaking aspen, hazelnut and other trees and brush. Three spraying rates of monuron were used—16, 32 and 48 lb. per acre, all in 160 gallons of water. The foresters sprayed the plots in August, 1954, and left other plots unsprayed.

Last fall, Mr. Hansen and Mr. Johnson found that plots sprayed at 16 lb. per acre averaged 6,290 one-year seedlings per acre, compared to only 690 in unsprayed plots. Where the treatment was 32 lb. per acre, the plots averaged 11,040 one-year seedlings and 9,550 seedlings on plots that had received 48 lb. chemical per acre.

In the 32 and 48-lb.-per-acre treatments, all aspen was killed except for about 10 feet along the plot boundaries. The 48-lb. treatment killed all hazel brush, but about 45% of the hazel brush remained on the 16-lb. plots two years after treatment.

Mr. Hansen and Mr. Johnson point out it's too early to determine how many of these newly germinated white pine seedlings will survive in coming years. But the tests do show, they say, that it's possible to get good vegetative control and a good "catch" of white pine seedlings by spraying with monuron. This treatment might also be used to control other vegetation where land is being artificially seeded, the foresters add.

CLIPS POWER LINE

SANTA MARIA, CAL.—A crop dusting plane clipped a 12,000 volt power line at Grover City near Santa Maria recently, but the pilot, Walter Watson, 45, was able to land safely at nearby Oceano airport.

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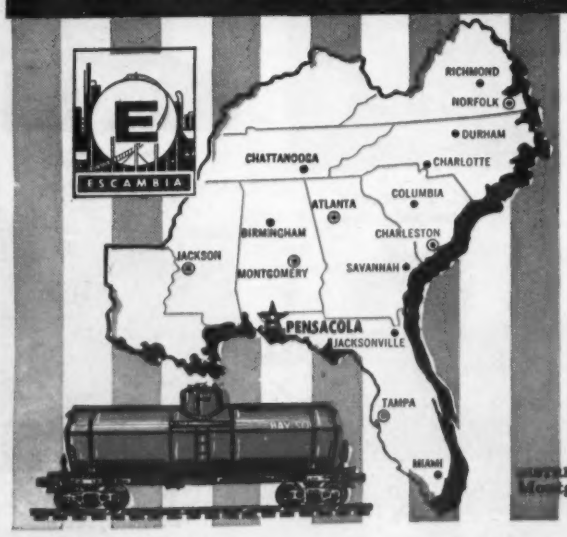

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WORLD REPORT

By GEORGE E. SWARBRECK
Croplife Canadian and Overseas Editor

Trofim Lysenko Back in Favor

Trofim Lysenko, much criticized Soviet scientist because of his unorthodox views on genetics, has reemerged from the obscurity into which he fell under the de-Stalinization policy. His proponent is no less a personage than Nikita Khrushchev. Finding favor from Russia's No. 1 man are his views on agricultural fertilizing methods.

Recently, Mr. Lysenko appeared at several agricultural conferences in Moscow, Gorky and other cities, at which Mr. Khrushchev was also present. At one conference Mr. Lysenko was called upon to deliver impromptu remarks on his method of using fertilizers. When he had done so Mr. Khrushchev said: "About three years ago I visited a model farm where Lysenko showed me a crop on fields that had been fertilized by his new method. This method is now well received in Moscow and other areas. There are some scientists who still argue with Lysenko on this matter. If I were asked which scientist I am voting for, I would say without giving it another thought —Lysenko."

Scientists, observers report, are among the most outspoken people in Russia and if his views on fertilizers are as vulnerable as those he holds on genetics, Mr. Lysenko is likely to come in for more criticism, despite the persuasive approval of Mr. Khrushchev.

Nitrogen Industry Outlook

Aikman (London), Ltd., the British nitrogen authority, in its half yearly report on the industry, says that there will have to be a further reduction in production this year unless consumption proves to be greater than present estimates indicate. However, with a normal increase of consumption in the next five years of around 5%, or 400,000 tons a year, the present estimated capacity might be covered by 1961-62.

Meanwhile, Aikman expects world production for 1956-57 to rise by 700,000 tons to 8,720,000 tons—an increase of 8¾%. Consumption, it estimated, will rise by 430,000 to or 5½, to 8,080,000 tons.

The main feature of world trad according to the Aikman report, h been a reduction in U.S. productio caused by manufacturers voluntar showing output because of their i ability to dispose of stocks.

New Fertilizer Plant In Dominican Republic

A new fertilizer plant has be opened in San Petro de Macor Dominican Republic. The cost h been put at $500,000.

Production capacity has been es mated at 240,000 metric tons a yea and this should be sufficient to me the requirements of the republic agricultural industry. The gover ment has been encouraging an i crease in food production and t supply of fertilizers is seen as o of the most important steps in a taining this end.

A shipment of 15,000 tons of am monium phosphate, other nitroge ous phosphatic materials, and mur ate of potash has already arrived the plant. The company concerned installing a modern laboratory Ciudad Trujilla.

New DDT Factory For India

The second DDT factory being s up in Kerela by the government India is expected to go into produ tion by the middle of 1958.

The contract for the supply an installation of the plant, and for t erection of the necessary building has been awarded on a turn-k basis to an American firm, accordi to Morarji Desai a government of cial. Construction of the buildin has already started and the first su plies of machinery are in the cou try.

Another factory, at Delhi, is e pected to be in production by t end of this year.

India Needs Capital For Fertilizers

The government of India wan fertilizer manufacturers, who no export their products to India, help in the establishment of factori in India itself.

The firms are asked to subm plans to the government for the sa to India of fertilizer over a period years, with the price based on th ruling in the competitive world ma ket, subject to a condition that t profits are plowed back into capit investment in fertilizer factories.

The Indian authorities also repo that they will welcome foreign i vestment for the purpose of esta lishing fertilizer production faciliti

IMC Names College Scholarship Winners

CHICAGO—The Plant Food Di sion of International Minerals Chemical Corp. has awarded $2,4 four-year scholarships to George Ruszat of Fairfax, Minn. and Ma garette E. Roach, Roebuck, S.C.

The scholarships are presented a nually to a daughter or son of employee of the firm. One-ye scholarships are awarded to a boy girl who has done well at school, b who has been particularly outstan ing in 4-H club, FFA and other lea ership activities.

One-year scholarship winners a William R. Lorenz, South Hollan Ill.; James H. Felts, Greenevil Tenn.; Donna Lou Jones, Winsto Salem, N.C., and Evelyn Macka Burlington, Mass.

STAUFFER APPOINTMENT

NEW YORK — Stauffer Chemi Co. has appointed Hunt Myers, fo merly assistant plant manager Roanoke, Va., to the position of s sistant production coordinator of t New York industrial sales staff.

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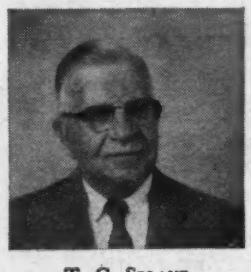
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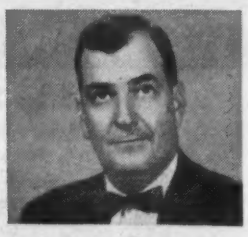
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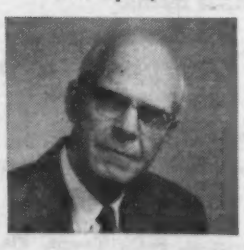
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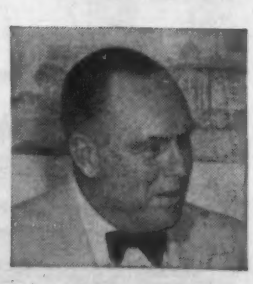
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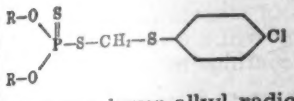
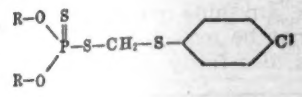
Industry Patents and Trademarks

2,793,224

...p - Chlorophenyl - Mercaptomethyl ...Alkyl Dithiophosphates and Their ...e as Insecticides. Patent issued ...y 21, 1957, to Llewellyn W. Fan..., Concord, Cal., assignor to ...uffer Chemical Co. A new com...ition of matter a compound hav... the formula:



...erein R is a lower alkyl radical. The method of killing pests com...sing applying to an insect habitat ...composition containing as the es...tial active ingredient, a compound ...ving the formula:



...erein R is a lower alkyl radical.

2,793,237

Process for the Manufacture of ...chloro - Diphenyl - Dichloroethane. ...tent issued May 21, 1957, to Ever... E. Gilbert, Flushing, and Henry ... Nychka, Bayside, N.Y., assignors ... Allied Chemical & Dye Corp., New ...rk. A process for preparing 1,1-bis ...chloropenhyl) - 2, 2 - dichloroethane ...ich comprises subjecting 1,1-bis-...chlorophenyl) 2,2,2-trichloroethane ... the action of metallic iron and ...ncentrated hydrochloric acid in the ...esence of a reaction medium con...ting of a lower saturated aliphatic ...ohol having from 1 to 3 carbon ...oms inclusive, at temperatures from ...out 60° C. to about 100° C.

2,792,297

Manufacture of Treble Superphos...ate. Patent issued May 14, 1957, to ...bert C. Mohr, Orinda, Cal., assign... to Stauffer Chemical Co. In a ...ocess for manufacture of treble su...rphosphate from a phosphate rock ...d in which process sulfates present ...e converted to phosphates by treat...nt with phosphoric acid, the phos...oric acid being derived by acidula...n with sulfuric acid of one portion ... the phosphate rock to form phos...oric acid which is recovered as ...ch and thereafter applied to an...her portion of the phosphate rock, ...e improvement which consists in ...bjecting Permian deposit phosphate ...ck composed of phosphate-rich ...lites and a softer phosphate-poor ...atrix to a mechanical disintegra...n treatment whereby the matrix is ...duced to a finely divided particle ...e while the oolites are reduced to a ...arser particle size than said matrix ...rticles, separating the fine matrix ...rticles from the coaser oolite par...les, treating the fine matrix par...les with sulphuric acid to produce ...osphoric acid, comminuting the ...arse oolite particles, and treating ...e thus comminuted oolite particles ...th said phosphoric acid to form ...ble superphosphate having an in...eased P_2O_5 content of at least 46%.

Industry Trade Marks

The following trade marks were published ...e Official Gazette of the U.S. Patent Office ... compliance with section 12 (a) of the ...demark Act of 1946. Notice of opposition ...der section 13 may be filed within 30 days ... publication in the Gazette. (See Rules 20.1 ...20.5.) As provided by Section 31 of the act, ...ee of $25 must accompany each notice of ...position.

Mobilsol, in capital letters, for in...cticides, herbicides, fungicides, plas...izers and solvents, extractants, and ...tenders. Filed April 20, 1956, by ...cony Mobil Oil Co., New York. ...rst use Dec. 28, 1955.

"Thanalith" in caps and lower case ...closed within quote marks, for wood preservatives, disinfectants, insecticides, fungicides, dyes, etc. Filed March 10, 1954, by Allgemeine Holzimpragnierung Dr. Wolman G.m.b.H., Sinzheim, near Baden Baden, Germany.

Amazing, in capital letters, for preparation used as an insecticide and fungicide for vegetables and roses. Filed Aug. 3, 1956, by Fertilizer Products Corp., doing business as Fox Fertilizers, Collingswood, N.J. First use July 16, 1956.

Trithion, in capital letters, for organic phosphate composition having as its essential active ingredient, O,O-Diethyl S-p-Chlorophenyl Thiomethyl Phosphorodithioate. Filed Aug. 20, 1956, by Stauffer Chemical Co., San Francisco, Cal. First use July 5, 1956.

S. G. Pugh Promoted By Chipman Chemicals Ltd.

HAMILTON, ONTARIO—The appointment of S. G. Pugh as western district manager of Chipman Chemicals Ltd., has been announced by J. H. D. Ross, general manager of the company.

Mr. Pugh obtained a B.S.A. degree from the University of Manitoba in 1938 and in 1940 joined the fertilizer division of Canadian Industries Ltd. in a sales capacity in the prairie provinces. In 1942 he was transferred to Newfoundland where he acted as a sales representative and ultimately district manager for C-I-L for several years. Returning to the prairie provinces three years later he assumed the position of district sales manager, agricultural chemicals department.

In 1954 Mr. Pugh accepted a position with Chipman Chemicals Ltd., Winnipeg, and when this company was reorganized in 1956 to merge with the pesticides operations of C-I-L, he continued in charge of western Canadian sales for the new organization. In his new appointment, Mr. Pugh will be located at Winnipeg and will be in charge of sales and production operations of the company in western Canada.

New Price

ST. LOUIS — Monsanto Chemical Co.'s Inorganic Chemicals Division has announced increases of $2 per ton for the period July 1, 1957 through June 30, 1958, on Lion-brand granular sulphate of ammonia, guaranteed 21% nitrogen. This brings the price of ammonium sulphate to $34 per ton in bulk carload lots and $39 per ton in 100-lb. and 80-lb. multiwall paper bags in carload lots, FOB shipper's plant at El Dorado, Ark.

..and quality you can *talk* about!

YOU CAN BAG NUTRONITE FOR LAWNS

Bag Nutronite to fill out your line of lawn and garden fertilizers. Golf courses use large quantities, too. For information on this profitable market for an all organic fertilizer write Smith-Rowland Co., Norfolk, Va.

Nutronite (formerly Smirow) adds to the selling power of your mixed fertilizers. Plainly visible Nutronite assures your customers of added growth and profits . . . brings back satisfied customers year after year.

Nutronite is the 100 percent natural organic addition to mixed fertilizers. Its nitrogen is 90% water insoluble and 90% available—for that all-season effect on plant growth.

Nutrition + Nitrogen = Nutronite

Let us figure the cost of Nutronite delivered to your plant.

SMITH NUTRONITE ROWLAND

SMITH-ROWLAND CO.
P. O. Box 1219, Norfolk 1, Va.
A DIVISION OF SMITH-DOUGLASS COMPANY, INCORPORATED

NPFI CONVENTION

(Continued from page 1)

possibly in Atlanta; and for the Northeast (undecided as yet).

Dr. Coleman said that "the objective of the program, in addition to expanding the fertilizer market by speeding up the acceptance of proper fertilizer usage, would be to further enhance the standing of the industry with farmers, agricultural workers and the general public.

"The fertilizer industry has a capacity to produce substantially more plant food than it is now selling. Yet agricultural leaders say that fertilizer usage should be at least twice the present consumption," he said.

"Efficient use of fertilizer is one of the best ways farmers can reduce the per unit cost of production and the expansion program will enable us to focus greater attention on the plant food needs of farmers, all in keeping with the recommendations of the agricultural colleges."

Sen. Karl E. Mundt (R., S.D.) told the convention that "to return to an era in which the operation of economic principles and policies once again have a dominant part in determining our national destiny, is going to require a substantial shrinkage in the power, in the spending, and in the regulations of the federal government."

"By the same token," Sen. Mundt added, "it is going to require a lot of added interest and effort on the part of individual citizens desiring to have their ideals have an impact on government attitudes. The public must also learn a lot more about the political machinery of freedom and where it needs fixing."

Sen. Mundt, who is a member of the Senate committees on appropriations, government operations, agriculture and forestry, and the investigating committee, spoke on "Our Fight to Stay Free."

"Today," he said, "I think few, if any, among us will deny the fact that the government has grown so strong and federal spending has become so important that the political bias of our national administrations determine the economic tone of our nation and the financial status of millions of Americans, whether they be workers or farmers or businessmen."

"Members of Congress, some of our officials in the executive departments, and a great many groups and individuals are expressing concern over two factors in the election processes which comprise our 'political machinery': (1) Meaningful and effective two-partyism is at a low ebb in the U.S.; and (2) The bloc-voting by which members of the electoral college cast their votes en masse (winner take all) in presidential elections, thus down-rating rural areas and up-rating the election impact of 12 vast cities in eight selected states of far more than average size," he continued. "It is my prevailing conviction that there is nothing more important or essential to the preservation of our American concepts (private ownership; our reward of merit system, recognition of the rights of states and individuals; economical and not over-centralized government) than the correction of these two deficiencies in our machinery of freedom—the method of voting for our presidents, and the party organizations by which we nominate and elect our presidents."

Sen. Mundt said that "we can have the kind of America we want—but to do so will require the modernization of our political machinery so that the desires of free Americans can be faithfully reflected by our voting procedures and our party organizations."

Dr. Raymond Rodgers, professor of banking, graduate school of business administration, New York University, told the delegates that "the American economy has lost its strong upward surge."

Speaking on "The Current Economic Outlook for Business," the nationally-known economist concluded that:

"The constant increase in the cost of doing business is bound to have an effect on the purchasing power of the dollar. The process of inflation, in all probability, will continue, although not at the same rate as in 1956.

"Continuation of the increase in the cost of production and decline in the value of the dollar will cause further mergers and liquidations. Moreover, it makes it advisable for corporations to finance their capital requirements through bonds rather than through equities."

Dr. Rodgers said that "obviously, it is not possible to foretell with any certainty when the forces of inflation will come to an end."

"In fact," he continued, "as of now, the 'cards are stacked' against such a development, as the following upward pressures indicate:

"There is a strong inflation bias in government, as is evidenced by the large expenditures of the federal government, the farm price policy, stockpiling, etc. All these factors obviously contribute to inflationary pressures.

"It costs more to secure many raw materials since some of the best sources of such materials have been used up. A good example is the growing extent to which American industry has to go far afield to obtain iron ore.

"The cost of transporting goods is rising and this, apparently, will continue.

"Organized labor has adopted a policy of demanding an increase in wages and more and more frin benefits each year. The cost of d ing business therefore despite the e forts of management to increase ef ciency will not only remain high b will continue to increase.

"Interest rates and corporate tax also are elements of cost whic wherever possible are shifted to t ultimate consumer. Corporate tax are very high, and while it is pos ble that in the foreseeable future t corporate tax rate may go down 50%, anything much below that lev cannot be expected for a long tim It is also fairly certain that intere

NPFI COVERAGE

Coverage of the National Plan Food Institute convention at Whi Sulphur Springs, W. Va., was provi ed by the following members of t Croplife staff: Lawrence A. Lon Donald Neth and W. E. Lingren the Minneapolis office and James W Miller of the New York office.

for richer sales fields this fall...

Croplife announces FOUR* special emphasis ISSUES devoted to fall fertilization and maintenance of pasture and range lands

*editorially tailored to 4 crop-areas to assure top advertising impact

Now! For the first time! Croplife offers four special emphasis issues covering fall fertilization and pasture maintenance. Four hard-hitting issues to pinpoint the situation in four crop-areas. Each special-emphasis issue will be a complete report —editorially tailored to the crop-area it will reach. That means you can tailor-make your advertising message for maximum impact and effectiveness. The map above shows the states included in each of the four regional distributions . . . the dates at left are those of the issues. Plan now to hit all or any combination of these regions with your sales story. Your message will be in the "good company" of sound editorial copy.

July 15, South
July 22, Midwest
July 29, West
August 5, Northeast

here's why your ad will sell

s will not go back to the levels 934-1951."

Dr. Rodgers said that "the cost doing business must be expected rise," and added that "nonethe-s, it must be frankly faced that en the cost of doing business s up, although keen competition y squeeze profits, this cannot go indefinitely, as the profit margin soon exhausted under such cir-mstances."

o stop inflation, he pointed out two principal forces at the dis-l of the government are "fiscal ipline and monetary discipline."

Fiscal discipline means, primarily, the government in periods of d business activity has a substan-budget surplus which it uses to uce the public debt," he said. "As discipline has not been prac-d since 1953, it is not likely to be oked willingly in the future."

he nitrogen producers were hosts a hospitality hour at the Green-r on June 10 and the Potash ducers sponsored a similar event on Tuesday evening preceding the annual banquet.

Recreational events were many, with golf, tennis, horseback riding, swimming and horseshoe pitching for the men and bridge, canasta, putting and excursions of the grounds arranged as part of the program for ladies.

★ ★ ★

POTASH VIEWPOINT

G. Fred Coope, president of the Potash Company of America and a member of the board of directors of the National Plant Food Institute, presented the following statement June 10 during the business meeting of the NPFI at the group's convention at the Greenbrier Hotel, White Sulphur Springs, W.Va.:

"Mr. Chairman, in voting against this proposal, I want to make it very clear that I am not voting against the basic program to encourage use of fertilizer—that I heartily endorse. What I am voting against is the distribution of costs. In the first place, the expanded program proposed is designed to help all of us equally and yet the total financial burden is placed solely on the producers of primary plant foods—and the captive tonnage of the primary producers is exempt.

"This apportionment of costs is extremely inequitable for the potash producers, or to be more exact, for that great majority of the potash companies who have for years supported the American Potash Institute . . . for a program of research, education and promotion which benefits the entire fertilizer industry. This assessment is six times as high as the maximum rate proposed by the NPFI. The Potash Institute program is substantially the same as that now proposed by the Plant Food Institute and is constantly growing in size, cost and effectiveness.

"In fact, it is of a magnitude comparable to that of the first year of the program now contemplated by the National Plant Food Institute and costs the Potash Institute members more per year than is currently expended by the National Plant Food Institute on all of its activities. Because this Potash Institute program exists, the Plant Food Institute program will be that much easier and cheaper; but, I repeat, that the present Potash Institute program is financed by the member potash companies alone.

"When my company was told of the current proposal, we studied it with care and concluded that the basic objective was commendable. However, as we were already deeply committed to the heavy expense of the Potash Institute, we concluded we could not bear the additional burden of this program as presented to us. I understand the other potash companies similarly affected felt the same.

"In a meeting between the members of the special committee of the Plant Food Institute, and the representatives of the domestic potash producers, the points which have been covered in the foregoing remarks were advanced. Because we favored the basic program, my company even offered to double our present contributions to the Plant Food Institute, but this did not meet the requirements of the current proposal. Other potash producers facing the same dilemma also offered a similar increase in contributions. No reply was made to our arguments, our offer and the statement of our position.

"In summary, my company's position is simply that we cannot accept the inequitable allocation of costs of this proposal and, if it is adopted, my company intends to submit its resignation from the Plant Food Institute. I am told that other major potash producers, with the exception of one which does not contribute to the American Potash Institute, are of the same view and intend to take the same action.

"I assure you that we have come to this conclusion with the greatest regret as we all have the highest regard for the Plant Food Institute and have valued our membership in it. Indeed, if my company is forced to resign for this reason, we would nonetheless be reluctant to withdraw our support and would like to continue our present financial contributions, that is, the same amount we are now paying, on some basis satisfactory to the institute, such as through an associate membership.

"I am also authorized to make this statement for the following potash producers as well:

American Potash & Chemical Corp.
Duval Sulphur & Potash Co.
National Potash Co.
Southwest Potash Corp.
U.S. Potash Co., Div. U.S. Borax & Chemical Corp."

In a later statement to Croplife, Mr. Coope described further the objectives of the American Potash Institute, pointing out that its program is primarily "the development and dissemination of information regarding the correct use of potash. . . . The methods employed in achieving this objective, likewise promote the use of other plant foods in mixed fertilizers, and phosphate and nitrogen, as well as lime and other substances, share equally with potash in the benefits of its program."

Mr. Coope said: "The staff of the Potash Institute makes no recommendations of its own, but works cooperatively with official agricultural agencies, assisting in the development and support of their programs. They recognize that the full benefits of potash can be realized only when used along with the correct amounts of all the other plant foods. The policy of the Potash Institute is to promote a balanced fertility program, designed to benefit American agriculture and the fertilizer industry."

EACH ISSUE A COMPLETE REPORT— DESIGNED TO BOOST FALL SALES!

Why These Special Emphasis Issues? . . .

roplife's editors have long felt the need for placing xtra emphasis on the marketing advantages and prof- opportunities of fall fertilization and pasture and nge maintenance. They sense the need for a cam-aign to increase fall application to help level-off onsumer demand . . . to reduce the spring rush and ubsequent shortage of materials. The immediate re-ponse to the initial issue on this subject published July, 1956, proved the value of the issue.

The Need for Four Complete Issues . . .

roplife's first Fall Fertilization coverage appeared a Midwest Marketing Issue—which limited some-hat the scope of the contents. The success of the itial attempt pointed up the need for specialized overage in each crop area—South, West, Midwest nd Northeast. Four tailor-made issues will bring pecialized information to each of these regions.

Editorial Content Paves the Way . . .

Editorial material is designed to be useful to *all* seg-ents of the industry—manufacturers, distributors nd retailers—in giving fall sales a big push this year. Much of the copy is planned for use in actual over-he-counter sales talks with farmers. Some may be dapted for bulletin board use. Other material can be tilized by dealers in local newspaper advertisements r direct mail campaigns. Plans call for a "question-nd-answer" feature; state recommendations for fall ertilization and maintenance of pastures; articles by uthorities on fertilization, weed and brush control, nsect control and the economics involved. They all oint toward the same goal: INCREASED FALL SALES!

Pinpoint Your Advertising Message . . .

This makes it possible—by picking appropriate issues —to key your message to *your* area of marketing nterest—to your prospects. This close tie-in with ditorial material will give your advertisements the reatest possible impact. It will deliver your sales essages to your prospects—*all* the way down the arketing line—at the right time . . . it will help them map out plans for increased fall sales of *your products*. Here's an opportunity for you to present your specific fall sales story . . . to point to the things you are doing—the sales-aids you offer—to help distributors and dealers sell.

Reader-Response Assured . . .

After reading the 1956 version of this new special emphasis series, many firms and individuals urged Croplife to make this an annual special emphasis project. Requests for extra copies of the July 23, 1956, Croplife came in at an unprecedented rate. Within two weeks, the entire supply of reserve copies had been exhausted . . . many requests could not be filled.

Make Your Plans Now . . .

Make plans now to take advantage of this outstanding fall fertilization series of special emphasis issues. Here's an unusual opportunity to tie-in your sales message with complete news and feature coverage of a timely and important subject. Contact the Croplife office nearest you for complete details and any service Croplife's sales representatives can offer.

HERE ARE THE CLOSING DATES

JULY 15, South Marketing Issue, CLOSES JULY 1
JULY 22, Midwest Marketing Issue, CLOSES JULY 8
JULY 29, West Marketing Issue, CLOSES JULY 15
AUGUST 5, Northeast Marketing Issue, CLOSES JULY 29

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July 22 ..... page(s)
July 29 ..... page(s)
Aug. 5 ..... page(s)

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City ..... Zone..... State.....
Signed .....

Croplife®

A WEEKLY NEWSPAPER FOR THE FARM CHEMICAL INDUSTRY

The regional circulation of this issue is concentrated in the Southern states.

Carelessness the Villain In Pesticide Accidents

While the pesticide industry is urging users everywhere to read labels and to employ the respective materials only in the manner prescribed, it is of significance that nearly all of the accidental poisonings reportedly resulting from pesticides occur from carelessness and ignorance. The damage is scarcely ever done in line with application to kill bugs, but rather, from foolish acts such as storing insecticides in bottles that once contained wine, whisky or soft drinks.

Dr. Bernard E. Conley, secretary of the American Medical Assn. committee on pesticides, recently said that poisonings from pesticides contribute something like 6-8% of the fatalities associated with accidental poisonings by liquid and solid substances.

He explained the types of accidents most commonly encountered involving pesticides. The situations described may help dealers to become more aware of potential hazards, and to aid them in giving out some free advice to purchasers of toxicants whom they think may not take a very serious attitude toward the pesticide.

Here are the comments made by Dr. Conley in this connection: "Typical fatal poisonings in children include the following: ingestion of phosphorus-containing gopher paste; ingestion of insecticide vaporizer tablets by toddlers; drinking of rodenticide solutions by crawling infants; use of horticultural insecticide bomb to spray room containing sleeping children; splashing of garden spray containing organic phosphorus insecticide on playmate; mud pies made from liquid solutions of insecticides; hats made from empty bags containing residues of insecticide powder; and group poisoning following eating of garden greens heavily contaminated with insecticide.

"The control of pesticide poisoning is a complex problem for which there is no single or pat answer. It is generally agreed that increasing safety awareness of the public, wider use of precautionary labeling and improving the accuracy of poisoning statistics would go far in controlling unintentional intoxications.

"Increasing safety awareness of the public without frightening them away from the use of pesticides is a ticklish problem. It is difficult to make people 'poison conscious' without scaring them in the process; yet we must advise users about this aspect of pesticides, if we are to improve their safety record. Constant warnings about the toxic properties of pesticides undoubtedly tend to create anxiety in some users, but this is the price we must pay to educate the public."

Florida Citrus Research

The fact that continuing research is a "must" when it comes to maintaining progress in agriculture, has been mentioned here many times in weeks gone by. It has been pointed out that the payoff always comes in one way or another, even though sometimes in a rather indirect manner.

Dr. J. R. Beckenbach, director of the Florida Agricultural Experiment Station has reported recently that research in that state has not only shown a profit in the past few years, but in a single incident has brought into the State more than three times as much money as has been appropriated in the entire history of the state's agricultural experiment stations!

He referred directly to the discovery that citrus yields may be increased greatly through the use of so-called minor elements in addition to the three major nutrients usually applied.

Dr. Beckenbach recalls that it was in the mid-thirties that researchers found that orange and grapefruit yields could be boosted greatly by the addition of magnesium, zinc, manganese and copper to the soil. Development of this principle has changed the agricultural situation greatly, to the extent that Dr. Beckenbach commented, "Florida might not be the leading citrus producing state today if it had not been for this finding."

The use of minor elements in citrus production in Florida was becoming popular by 1937 and the practice is continued today. Partly as a result, yields have climbed from an average of 96 boxes per acre in 1929 to more than 400 boxes today.

Back in the early days, grove operators relied heavily on fertilizers that contained chiefly only nitrogen, phosphorus and potassium. This program led to widespread deficiencies of minor elements, severely curtailing production, says Dr. Beckenbach.

It is calculated the dollar value of the minor element discovery each season amounts to about $91,530,000. Yet all the state general revenue funds appropriated to the Florida Agricultural Experiment Station since its foundation in 1887 adds up to only $35,201,855.

Dr. Beckenbach says this is only one of thousands of research contributions made by station research workers. There is no agricultural enterprise in Florida that has not benefited from research studies. "Florida agriculture," concludes the director, "is a living tribute to research put into practice by the progressive farmers and ranchers of our state."

Cultural Methods Not Sufficient for Gypsy Moth

Eradication of the gypsy moth in a number of eastern states is being attempted by USDA over the continued loud protests from citizens who apparently have sincere fears for their lives and property because of the sprays used in the project.

Suggestions have come to the effect that the natural predators of the gypsy moth, plus diseases of the insect, could eradicate the pest without having to rely on the application of pesticides to which many of the residents of towns and cities object. According to USDA authorities, however, this just isn't true.

Emory D. Burgess, USDA official in charge of pest control operations, puts it on the line in this way: "Natural enemies of the gypsy moth and diseases which attack the moth, won't eradicate this pest." Such natural controls have been building up for the past half century, he points out, and in that time, the gypsy moth has spread from New England where it was in 1953 to about 9 million acres in southeastern New York, northeastern Pennsylvania, and Northern New Jersey.

Because of this long-term experience in depending upon natural controls, USDA decided that more effective steps would have to be taken.

There has been no denying that natural enemies of the gypsy moth are of some benefit, but it has also been demonstrated that they cannot keep pace with the spread of the pest. Economic damage to timber is of such magnitude that it is not possible to stand by and hope that nature will provide some means of stopping the destruction. Millions of board feet of timber are killed each year in New England alone, and nothing less than the application of insecticides can be depended upon for stopping these depredations.

Defending its decision to spray these areas, USDA says: "State and Federal pest control agencies are convinced that insecticidal spraying in the areas newly-invaded by the moth is the only sound method science has found thus far to guard the nation's forests from further invasion and destruction."

Croplife's Home Office

Croplife

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NBP — *Member of National Business Publications*

CROPLIFE is a controlled circulation journal published weekly. Weekly distribution of each issue is made to the fertilizer manufacturers, pesticide formulators and basic chemical manufacturers. In addition, the dealer-distributor-farm adviser segment of the agricultural chemical industry is covered on a regional (crop-area) basis with a mailing schedule which covers consecutively, one each week, four geographic regions (Northeast, South, Midwest and West) of the U.S. with one of four regional dealer issues. To those not eligible for this controlled distribution Croplife subscription rate is $5 for one year ($8 a year outside the U.S.). Single copy price, 25¢.

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Editor

DONALD NETH
Managing Editor

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MEETING MEMOS

ne 18-20—Pilot Plant Demonstration of Developments in Fertilizer Technology, Tennessee Valley Authority, Wilson Dam Laboratories, Sheffield, Ala.

ne 18-20—Northeastern Branch, American Society of Agronomy, Summer Meeting, University of Massachusetts.

ne 20-22—Summer Meeting, University of Georgia Agronomists and Georgia Section, American Society of Agronomy, Tidewater Experiment Station, Fleming, Ga.

ne 23-26—American Society of Agricultural Engineers, Golden Anniversary meeting, Michigan State University, East Lansing, Mich.

ne 24-27—Canadian Societies of Agronomy and Soil Science, Vancouver, British Columbia.

ne 24-28—Agricultural Dealers Workshop, Louisiana State University, Baton Rouge.

ne 26—North Central States Association of Dairy, Food, Drug, Feed, Fertilizer and Pesticide Officials, Annual Meeting, Sheraton Martin Hotel, Sioux City, Iowa.

ne 26-28—Eighth Annual Fertilizer Conference of the Pacific Northwest, Benson Hotel, Portland, Ore. B. R. Bertramson, Washington State College, Pullman, Wash., chairman.

ne 26-28—Pacific Branch, Entomological Society of America, 41st Annual Meeting, Multnomah Hotel, Portland, Ore., H. H. Keifer, 1112 Swanston Drive, Sacramento 14, Cal., Secretary-Treasurer.

ne 29—Del-Mar-Va Peninsula Fertilizer Assn., 36th Annual Convention, George Washington Hotel, Ocean City, Md.

ly 1-12—Summer Meetings, Georgia Plant Food Educational Society, July 1, E. O. Cabiness Farm, Oglethorpe County; July 9, A. C. Ewing Farm, Newton County; July 11, H. D. Burton Farm, Thomas County; July 12, Sam Neville Farm, Bulloch County; J. Fielding Reed, 710 Mortgage Guarantee Bldg., Atlanta 3, Ga., Secretary-Treasurer.

ly 4-5—Alabama Seedsmen's Assn., Battle House, Mobile, Ala.

ly 10-14—Plant Food Producers of Eastern Canada, Manoir Richelieu, Murray Bay, Quebec.

ly 11-12—Great Plains Anhydrous Ammonia Meeting, Kansas State College, Manhattan, Kansas.

ly 17-19—Southwestern Fertilizer Conference and Grade Hearing, Buccaneer Hotel, Galveston, Texas.

ly 30-31—Fertilizer Meetings and Experiment Station Tours, Auburn, Ala. and Thorsby, Ala., Sponsored by the Alabama Agricultural Experiment Station and Alabama Soil Fertility Society.

ug. 13-14—Ohio Pesticide Institute, Summer Meeting, Ohio Agricultural Experiment Station, Wooster, Ohio, J. D. Wilson, Ohio Agricultural Experiment Station, Secretary.

ug. 14—Connecticut Agricultural Experiment Station Field Day, Mt. Carmel, Conn. Dr. James G. Horsfall, New Haven, director.

ug. 28-31—Soil Conservation Society of America, Annual Convention, Asilomar, Cal.

ept. 4-6—National Agricultural Chemicals Assn., Annual Meeting Essex & Sussex, Spring Lake, N. J., L. S. Hitchner, 1145 19th St. N.W., Washington 6, D. C., Executive Secretary.

ept. 5-6—Great Lakes States Anhydrous Ammonia Meeting, Michigan State University, East Lansing, Mich.

Sept. 8-15—International Congress of Crop Protection, Hamburg, Germany.

Sept. 24-25—New England Fertilizer Conference, Bald Peak Colony Club, Melvin Village, N.H.

Oct. 2-4—Eleventh annual Beltwide Cotton Mechanization Conference, Shreveport, La.

Oct. 3-5—Pacific Northwest Plant Food Assn., Annual Convention, Sun Valley, Idaho, Leon S. Jackson, Lewis Bldg., Portland 4, Ore., Secretary.

Oct. 7-8 — Western Agricultural Chemicals Assn., Fall Meeting, Villa Hotel, San Mateo, Cal., C. O. Barnard, 2466 Kenwood Ave., San Jose 28, Cal., Executive Secretary.

Oct. 14—Sixth Annual Sales Clinic of the Salesmen's Assn., American Chemical Society, Hotel Roosevelt, New York.

Oct. 17—Conference on Chemical Control Procedures for Industry Chemical Control Analysts, Shoreham Hotel, Washington, D.C. Sponsored by National Plant Food Institute.

Oct. 18—Association of American Fertilizer Control Officials, (States Relations Committee, 8 p.m. Oct. 17), Shoreham Hotel, Washington, D.C., B. D. Cloaninger, Box 392, Clemson, S.C., Secretary-Treasurer.

Oct. 29-30—Seventh Annual Northwest Garden Supply Trade Show of Oregon Feed & Seed Dealers Assn., Portland, Ore. Masonic Temple.

Oct. 29-31—Entomological Society of Canada and Entomological Society of Alberta, Annual Meetings, Lethbridge, Alberta.

Oct. 31-Nov. 1—Second Annual Southern Fertilizer Conference and Second Annual Southern Soil Fertility Conference, Dinkler Plaza Hotel, Atlanta, Ga.

Nov. 3-5—California Fertilizer Assn. 34th Annual Convention, St. Francis Hotel, San Francisco. Sidney H. Bierly, General Manager, 475 Huntington Drive, San Marino 9, Cal.

Nov. 6-8—Fertilizer Industry Round Table, Sheraton Park Hotel, Washington, D.C.

Nov. 17-19—National Fertilizer Solutions Assn., Annual Convention, Netherland-Hilton Hotel, Cincinnati, Muriel F. Collie, 2217 Tribune Tower, Chicago 11, Ill.

Dec. 1-3—Southern Seedsmen's Assn., Jung Hotel, New Orleans.

Dec. 2-5—Entomological Society of America, 5th Annual Meeting, Hotel Peabody, Memphis, Tenn., R. H. Nelson, 1530 P St., N.W., Washington 5, D.C., Executive Secretary.

Dec. 2-5—Cotton States Branch, Entomological Society of America, 32nd Annual Meeting, Hotel Peabody, Memphis, Tenn., M. E. Merkl, Box 202, Leland, Miss., Secretary-Treasurer.

Dec. 9-12—Chemical Specialties Manufacturers Assn., Hollywood Beach Hotel, Hollywood, Fla.

Dec. 10-12 — North Central Weed Control Conference, 14th Annual Meeting, Hotel Savory, Des Moines, Iowa. Lyle A. Derscheid, agronomy department, South Dakota State College, Brookings, Program Chairman.

Dec. 11-13—Agricultural Ammonia Institute, Seventh Annual Meeting, Hotel Marion, Little Rock, Ark., Jack F. Criswell, Claridge Hotel, Memphis, Executive Vice President.

Dec. 12-13—Beltwide Cotton Production Conference, Hotel Peabody, Memphis, Tenn.

1958

Jan. 7-8—Texas Fertilizer Conference, Texas A&M, College Station, Texas.

Jan. 13-15, 1958—Weed Society of America and Southern Weed Conference, joint meeting. Peabody Hotel, Memphis, Tenn.

Jan. 21-23—California Weed Conference, San Jose, Cal.

Feb. 13-14—Agronomists-Industry Joint Meeting, Edgewater Beach Hotel, Chicago, sponsored by the Middle West Soil Improvement Committee, Z. H. Beers, 228 N. LaSalle St., Chicago 1, Ill., Executive Secretary.

March 4-5—Western Cotton Production Conference, Hotel Cortez, El Paso, Texas, Conference Sponsored by the National Cotton Council and the Five State Cotton Growers Assn.

July 18-19—Southwest Fertilizer Conference and Grade Hearing, Buccaneer Hotel, Galveston, Texas.

Sagebrush Spraying Brings Increased Yield from Grasses

CORVALLIS, ORE. — A three-fold increase in less desirable grasses—bluegrass, junegrass and squirrel tail—can be expected a year or two after spraying fairly dense sagebrush ranges and increases in the more desirable grasses will come in two or three years.

That's what D. W. Hedrick, range researcher at Oregon State college, and Bill Farrell, Grant County, Oregon extension agent, found after testing effects of large-scale, range-spraying operations in May, 1955. Some 10,000 acres in Grant County were sprayed with 1½ to 2 lb. of butyl ester of 2,4-D per acre. Research plots were clipped in 1955 and 1956.

Mr. Hedrick and Mr. Farrell report that although the big grass increase was in less desirable species, increases in more desirable grasses such as bluebunch wheatgrass and Idaho fescue can be expected two or three years after spraying.

Research workers in drouth-stricken areas have found that these grasses don't recover immediately after a year or two of normal rainfall, although these ranges improve rapidly where bunches of less desirable grasses are well distributed.

Bitterbrush suffered a third to a half top kill the first year. Mr. Hedrick and Mr. Farrell aren't yet sure this will seriously set back this valuable browse. Early spraying for sage may not hurt as much as late spraying, but until more is known, they suggest ranchers avoid spraying ranges that have large amounts of bitterbrush. Many spraying strips were missed and good ground control for pilots also is suggested, especially on rough ground or irregular brush stands.

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Classified advertisements accepted until Tuesday each week for the issue of the following Monday.

Rates: 15¢ per word; minimum charge $2.25. Situations wanted, 10¢ a word; $1.50 minimum. Count six words of signature, whether for direct reply or keyed care this office. If advertisement is keyed, care of this office, 20¢ per insertion additional charged for forwarding replies. Commercial advertising not accepted in classified advertising department. Advertisements of new machinery, products and services accepted for insertion at minimum rate of $10 per column inch.

All Want Ads cash with order.

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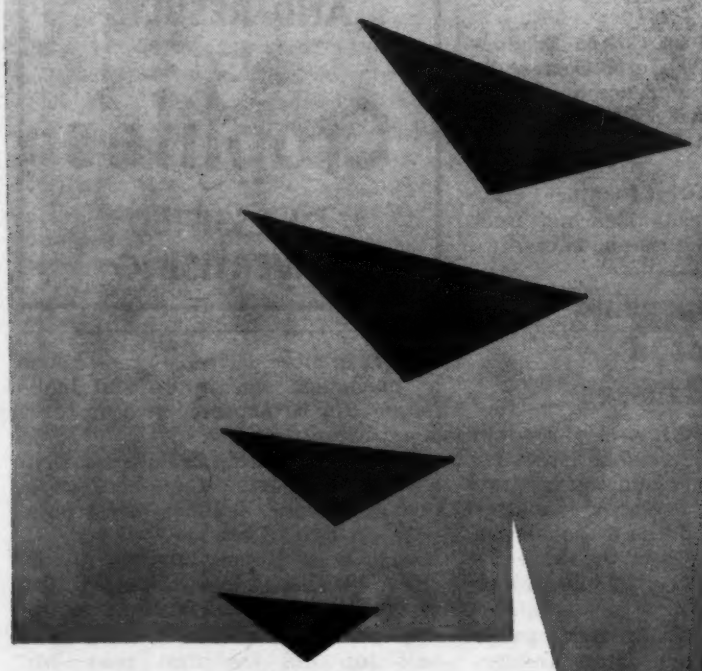
How Hercules Helps YOU Sell More Toxaphene



This toxaphene advertisement is typical of those being read by more than one million farmers—regular readers of such agricultural publications as "Progressive Farmer," "Farm & Ranch," and other farm magazines. Eye-catching advertisements like this plus local toxaphene promotion can help you increase toxaphene sales and profits.

Other ads in the series will emphasize the importance of toxaphene in controlling specific insect pests on a variety of crops. This continuing advertising program in leading agricultural publications, plus local radio and television announcements, backed up by your use of the many dealer aids available from Hercules, can help make '57 a banner sales year for you.

NXB7-7

Cotton farmers *can* avoid late season trouble by producing bolls as quickly as possible. Young cotton can be ruined by cutworms, stunted and weakened by thrips, fleahoppers, and overwintered boll weevils.

The keystone of early cotton production is a thorough insect control program *now!* If you don't control these early insects now, you'll have to produce your bolls later in the season when insect populations are high and expensive to control.

Toxaphene is the keystone of every early insect control program. Toxaphene controls early season insect pests effectively and economically.

Don't lose a single square to early insect pests. Get your cotton off to a fast start with an insect control program based on toxaphene. Your dealer can supply you with toxaphene dusts or spray materials now!

TOXAPHENE

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